

3 1761 1157973 2














Digitized by the Internet Archive  
in 2022 with funding from  
University of Toronto

<https://archive.org/details/31761115579732>



# MINERAL INDUSTRY REPORT 1969 and 1970

72

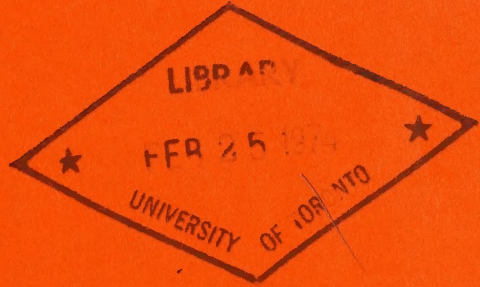
Volume 1

Yukon Territory and  
Southwestern Sector  
District of Mackenzie



north  
of 60

mines and minerals



Canada

Dept. of Indian Affairs and  
Northern Development

DBCraig  
P Laporte

A1  
A60  
M33

general publications 7  
H2]

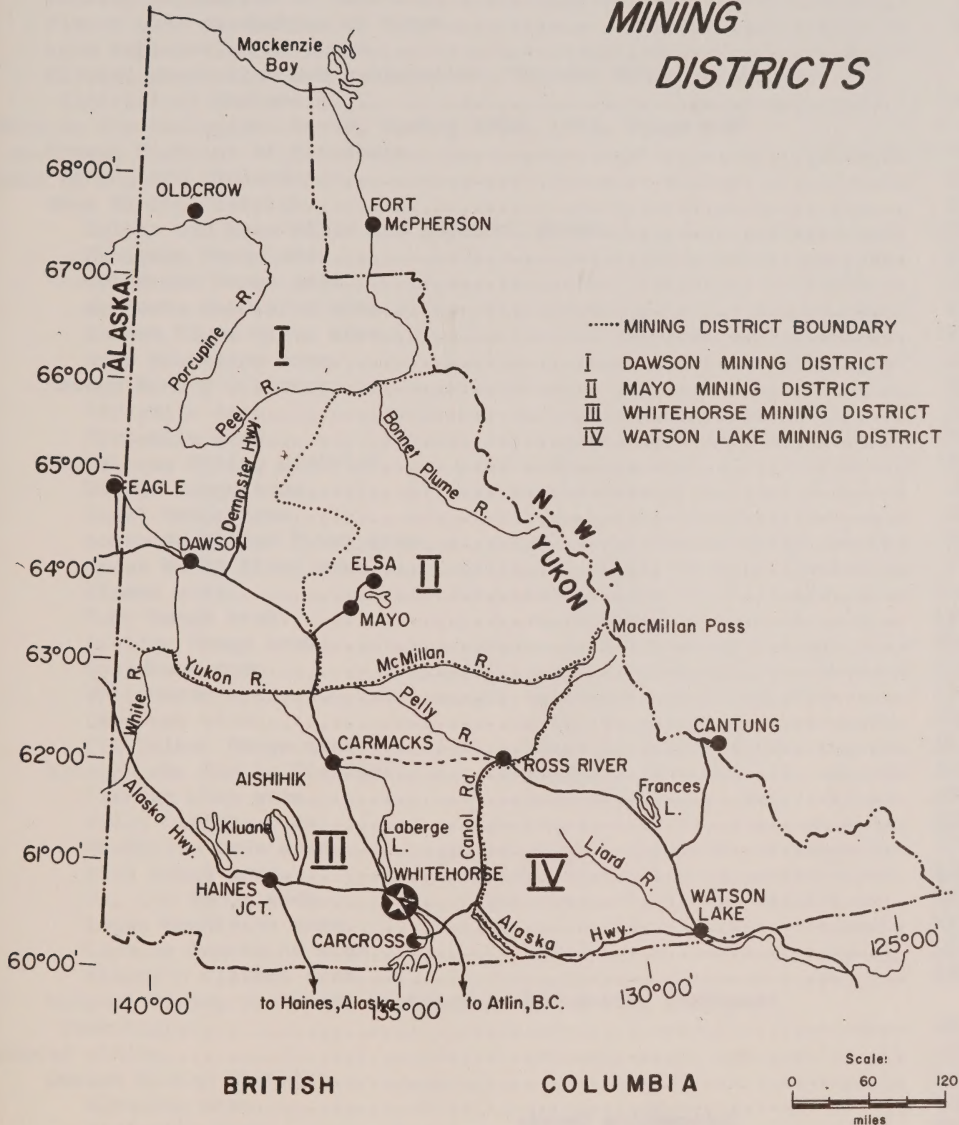
northern economic  
development branch  
department of indian affairs  
and northern development  
government of canada







# YUKON TERRITORY MINING DISTRICTS



Information Canada  
Ottawa, 1972  
Cat. No.: R71-9/1969-70-1  
IAND Publication No. QS-0139-000-EE-A-1



CONTENTS

	Page
Abstract.....	iii
Introduction.....	1
Transportation facilities.....	1
Mineral production of Yukon.....	2
Placer gold production of Yukon.....	2
Lode exploration in Yukon.....	7
Mineral production and exploration, Nahanni Mining District, District of Mackenzie.....	8
Work by the Geological Survey during 1969, 1970, Yukon and southwest District of Mackenzie.....	8
Lode mining and exploration.....	11
Mayo Mining District.....	11
Galena and Keno Hills and adjacent areas.....	11
Davidson Range area.....	19
Patterson Range area.....	21
Wernecke Mountains area.....	23
Bonnet Plume River area.....	27
Hess Mountains area.....	29
Dawson Mining District.....	30
Fortymile area.....	30
Sixtymile area.....	32
Whitehorse Mining District.....	35
Dawson Range area.....	35
Anvil Range area.....	93
South MacMillan River area.....	97
Upper White River area.....	98
Kluane area.....	100
Ruby Range area.....	104
Nisling Range area.....	106
Dezadeash area.....	108
Whitehorse area.....	110
Carcross area.....	115
Big Salmon Range area.....	119
Watson Lake Mining District.....	126
Frances Lake area.....	126
Pelly Plateau area.....	128
MacMillan Pass area.....	129
Itsi Range area.....	130
St. Cyr Range area.....	131
Logan Mountains area.....	133
Cassiar Mountains area.....	137
Nisutlin Plateau area.....	138
Nahanni Mining District, District of Mackenzie, Northwest Territories.....	140
Placer mining.....	143
Dawson Mining District.....	143
Klondike area.....	143
Sixtymile area.....	149

	Page
Mayo Mining District.....	150
Haggart Creek and Dublin Gulch area.....	150
Highet Creek area.....	151
Sourdough Hill area.....	151
Whitehorse Mining District.....	152
Kluane Lake area.....	152
Coal Mining and exploration.....	153
Whitehorse Mining District.....	153
Carmacks area.....	154
Appendix A.....	160
Reports accepted for assessment credit, 1969, 1970.....	160
Selected Bibliography.....	171
Index.....	178
Table	
I Representative transportation costs for Yukon Territory, 1969, 1970.....	3
II Mineral production of Yukon Territory.....	5
III Yukon placer gold production, 1969, 1970.....	6
IV Mineral claims recorded, Yukon Territory.....	6



ABSTRACT

This report is a summary of activity by the mineral industry in the Yukon Territory and the southwestern District of Mackenzie during 1969 and 1970.

The value of Yukon mineral production increased markedly during both years. The 1969 production of \$35.4 million, compared with 1968 production of \$21.3 million reflects increases in asbestos output by the Clinton Mine of Cassiar Asbestos Corporation from \$8.7 million to \$11.9 million, in copper concentrates from New Imperial Mines from \$5.1 million to \$7.6 million and four months production from Anvil Mine which shipped its first concentrates from the mill in September of 1969. Two small gold-silver producers, Arctic Gold and Silver Mines Limited and Mount Nansen Mines Limited ceased operations during the year.

The increase in value of production for 1970 to \$79.6 million was due to the first full year of operation of Anvil Mine with concentrate sales of \$40 million. Clinton Mine output increased by \$3 million to \$15.2 million and output from New Imperial Mines declined by \$1.5 million largely as a result of the much lower average price for copper during 1970. Venus Mines, a gold-silver-lead-zinc-cadmium producer on Tagish Lake, milled at roughly 250 tons per day from September to December.

Pre-production work went forward at Wellgreen Mine where Hudson-Yukon Mines Limited will start production of nickel-copper concentrates at a 600 tons per day milling rate in the fall of 1971.

Exploration was active during both years with a noticeable increase during 1970 of geochemical stream silt surveys by major mining companies, largely in, but not restricted to, the Dawson Range.

Coal exploration, largely between Whitehorse and Carmacks, was done by several companies, in which numerous showings, known since the turn of the century, were re-examined, and some new occurrences discovered.

Placer gold production declined from about 11,700 ounces in 1968 to 9,800 in 1969 and 8,500 in 1970 with some 35 miners recording more than 30 ounces of gold produced.

In the Nahanni Mining District, Canada Tungsten mill operated throughout 1969 and 1970 producing 203 thousand STU\* of  $WO_3$  and 366 thousand pounds of copper in 1970.

---

\*Short ton unit





## INTRODUCTION

This report is a review of the Yukon mineral industry for 1969 and 1970, by the Northern Economic Development Branch of the Department of Indian Affairs and Northern Development. Earlier geological records are presented in the Annual and Summary Reports of the Geological Survey of Canada from 1898 to 1933. Many of these earlier records have been annotated and republished in Geological Survey Memoir 284 (Bostock, 1957). This Memoir is presently being republished, but is currently available on microfilm. Mineral industry records for the period 1934 to 1940 are summarized by Bostock (1935, 1936b, 1937, 1938, 1939 and 1941). Records since 1960 are presented in an annual series of Geological Survey of Canada papers entitled The Mineral Industry of Yukon Territory and Southwestern District of Mackenzie by Skinner (1961, 1962); Green and Godwin (1963, 1964); Green (1965, 1966); and Findlay (1967, 1969a, 1969b).

The information was obtained from visits to properties, correspondence with company personnel, technical reports of companies, newspapers and trade journals and from the reports of the Mining Recorders of the Dawson, Mayo, Watson Lake and Whitehorse Mining Districts.

The authors acknowledge with thanks the co-operation of the companies and individuals of the mineral industry who provided information. The co-operation of members of government agencies has also been most helpful.

## TRANSPORTATION FACILITIES

Whitehorse (population roughly 10,000 in 1970), the capital of Yukon Territory and main distribution centre, is serviced by ship and rail via Skagway (White Pass and Yukon Route), and by truck, bus and air from Vancouver and Edmonton. Canadian Pacific Airlines provide daily service to Edmonton and twice daily service to Vancouver. Wain Consolidated Airlines provide service on a three times per week basis between Whitehorse, Fairbanks, Anchorage and Juneau. Canadian Coachways Limited provide service to communities within the Territory and have three times per week service to Edmonton and Vancouver via Dawson Creek.

A highway system provides the basic surface transportation routes as follows: The Alaska Highway through southern Yukon (Watson Lake-Whitehorse-Alaska), the Whitehorse-Stewart Crossing-Mayo-Keno road with the road from Dawson City joining this road at Stewart Crossing, and the Campbell Highway from Watson Lake, through Ross River to Carmacks. Minor roads connect the network described with the small settlements and mining properties. Federal Government assistance is provided for mine access roads and Territorial Government assistance helps in the building of temporary and permanent, low-cost roads to exploration prospects, timber leases and ranches.

Boats are available for charter and some heavy equipment and fuels are moved on the Yukon River. One boat, the Brainstorm, services the community of Old Crow on the Porcupine River from a base at Dawson City, making the 1,000-mile round trip several times during the summer season.

Fixed wing aircraft, up to DC-3 size at Whitehorse, single Otter at Watson Lake, and Beaver at Ross River and Mayo, are available for charter.

Helicopters are permanently based at Whitehorse and Watson Lake and various designated points during the summer season.

#### MINERAL PRODUCTION OF YUKON

Table II shows current and cumulative Yukon mineral production. The increases between 1968 and 1969, from \$21.3 million to \$35.4 million are a reflection of increased sales of Clinton Creek asbestos (\$3½ million), New Imperial Mines copper concentrates (\$2½ million) and Anvil Mines lead and zinc concentrates from the first four months of production from September to December.

The very large increase to \$79.6 million in 1970 is an expression of Anvil Mines first full year of production with sales of concentrates being \$40 million. Clinton Creek production increased some \$3 million; New Imperial sales declined about \$1½ million.

Further production from Yukon mines is expected in 1971 with both Anvil and Clinton Creek production to be increased and production to start in the fall from the Wellgreen copper-nickel mine of Hudson-Yukon Limited at Quill Creek, west of Burwash Landing on Kluane Lake.

#### YUKON PLACER GOLD PRODUCTION

Yukon placer gold production, as summarized in Table III, shows a moderate decline from 9,800 ounces in 1969 to 8,400 ounces in 1970, with most areas showing a decrease. In 1970, some 30 operators recorded production of greater than 30 ounces. There were probably more casual operators, winning a few ounces, in 1970, than in the immediately preceding few years.

TABLE I

Representative Transportation costs for Yukon Territory, 1970

RAIL AND BOAT (container ship every week)

Ore and concentrates - Whitehorse to North Vancouver  
Commodity rate on 30,000 lb. carloads

Lead, zinc or copper concentrates..... \$16.00 per ton  
Asbestos fibre..... 17.00 per ton

Mining equipment and related supplies - North Vancouver to Whitehorse  
Commodity rate (dollars per 100 lb.)

	10,000	24,000	36,000
Machinery	3.05	2.75	2.65
Petroleum products (packaged)	3.05		
(Gasolines and fuel oils are quoted F.O.B. Whitehorse)			
Drilling mud, building supplies	3.05	2.95	2.95

Backhaul rate on the above up to 12 months is 60 per cent

TRUCK

Basic rates - Whitehorse from Edmonton and Vancouver

Pounds.....	100	5,000	10,000
From Edmonton			
(dollars per 100 lb.).....	7.25	5.62	4.97
From Vancouver			
(dollars per 100 lb.).....	11.35	6.33	5.74

BUS (3 times per week)

Express rates - Whitehorse

	1-2 lb.	2-10	40-50	90-100
From Edmonton.....	2.30	2.85	7.05	12.50
From Vancouver.....	2.95	3.15	8.65	15.65



Table I (cont'd)

AIR (Edmonton - daily, Vancouver - twice daily)

Air express and air freight - to Whitehorse from Vancouver and Edmonton

Air express	Minimum	1-10 lb.	20-24 lb.	100 lb.	
from Edmonton					
dollars		7.00	10.95	38.75	
from Vancouver	Minimum	1-8 lb.			
dollars		7.00	11.95	43.50	
Air freight	Minimum	to 50 lb.	100 lb.	200 lb.	400 lb.
from Edmonton					
dollars		11.50	.22/lb.	.20/lb.	.19/lb.
from Vancouver	Minimum	to 25 lb.			
dollars		6.00	.22/lb.	.19/lb.	.18/lb.

CHARTER AIRCRAFT

Type	Rate per hour	Rate per mile
Fixed Wing		
Cessna 172 .....	\$ 55.00	\$ .45
180 .....	70.00	.60
185 wheels .....	80.00	.60
185 floats .....	80.00	.65
Beaver .....	90.00	.90
Otter .....	145.00	1.35
Aztec .....	140.00	.70
DC-3 .....	225.00	1.50
Helicopters	Rate per hour when carrier supplies fuel	Rate per hour when charterer supplies fuel
G-2 .....	\$ 120.00	\$ 112.00
G-3-B-1 .....	155.00	144.00
206 A (Jet Ranger) .....	248.00	237.00
Hiller 12 E .....	160.00	

TABLE II

Mineral Production of Yukon Territory<sup>1</sup>

Product		1968	1969	1970 <sup>2</sup>	Cumulative Totals <sup>2</sup> 1886 to 1970
Gold	fine oz.	24,167	29,682	20,400	
	\$	911,338	1,118,715	746,000	267,864,802
Silver	fine oz.	2,077,987	2,685,060	4,265,000	
	\$	4,806,384	5,182,166	7,890,250	146,127,180
Lead	lb.	7,221,940	28,056,581	137,475,000	
	\$	970,629	4,256,183	21,748,500	82,301,502
Zinc	lb.	5,306,429	33,062,280	155,975,600	
	\$	748,206	5,035,385	24,846,900	64,367,909
Cadmium	lb.	51,830	68,172	63,000	
	\$	147,716	239,965	236,900	6,076,476
Copper	lb.	10,597,000	14,866,077	15,500,000	
	\$	5,097,157	7,645,623	9,000,800	28,255,142
Tungsten lb.					
\$					27,499
Platinum fine oz.					19
\$					1,553
Coal	tons		5,000 <sup>3</sup>	16,700 <sup>3</sup>	300,437
	\$		50,000 <sup>4</sup>	167,000 <sup>4</sup>	2,784,312
Asbestos	tons	63,592	87,437	108,000	
	\$	8,684,125	11,924,526	15,173,000	36,188,022
Totals \$		21,365,555	35,402,563	79,642,350	633,994,217

<sup>1</sup>Figures from Dominion Bureau of Statistics

<sup>2</sup>Preliminary figures (Dominion Bureau of Statistics)

<sup>3</sup>1969 and 1970 values of coal are preliminary

<sup>4</sup>At approximate price of \$10/ton

TABLE III

Yukon Placer Gold Production, 1969 and 1970

District	Area	Number of operators <sup>1</sup>		Approximate production of gold (crude ounces)	
		1969	1970	1969	1970
Dawson	Klondike	18	17	5,689	5,324
	Sixtymile	2	4	552	412
Mayo	Haggart Creek				
	and Dublin Gulch	2	2	1,826	1,707
	Hight Creek	1	1	494	392
	and Johnson Creek	1	1	170	168
Whitehorse	Bullion Creek	1	1	100	90
	Burwash	2	2	232	226
	Sheep Creek	0	1	-	32
Miscellaneous Production		(10)	(5)	(120)	(113)
Totals		35	34	9,183	8,464

<sup>1</sup>With production greater than 30 ounces

TABLE IV

Mineral Claims Recorded, Yukon Territory

Mining District	1966	1967	1968	1969	1970
Dawson	738	220	403	846	847
Mayo	706	680	2,115	1,466	768
Watson Lake	4,828	2,183	2,091	996	1,294
Whitehorse	11,666	4,295	3,948	12,927	8,609
Totals	17,938	7,378	8,557	17,081	11,518



### LODE EXPLORATION IN YUKON

Yukon Territory during 1969 and 1970 was the scene of strong exploration activity. By most guides - number of claims staked, number of companies, size of programs - these years were more active than the immediately preceding ones. Major mining companies were strongly represented either by exploration subsidiaries or by joint venture agreements. Mineral exploration divisions of petroleum companies were also active.

Table IV records the mineral claims staked and illustrates the marked increase in staking activity during 1969 over 1968 and the decrease from 1969 to 1970 from 17,081 to 11,518 claims.

The Whitehorse Mining District was the most active in 1969 with roughly 13,000 claims recorded, 10,000 of these being in the Dawson Range. During 1970, some 70 per cent of the claims recorded in the Territory were in the Whitehorse Mining District.

The major discovery of 1969 was the porphyry copper-molybdenum deposit on the Casino Silver Mines Limited property, 190 air miles northwest of Whitehorse, at the heads of Canadian and Casino creeks in the Dawson Range. Following recognition of essentially coincident copper and molybdenum anomalies on Patton Hill in 1968, diamond drilling started in June, 1969, by July had demonstrated a promising mineralized zone. This discovery stimulated a staking rush which continued through the mild fall and early winter of 1969.

On the west side of Windy Arm, Tagish Lake, Venus Mines Limited continued underground development of the gold-silver property which had been active in the early 1900's.

Boswell River Mines continued exploration of the Slate Mountain copper-molybdenum occurrence northeast of Whitehorse, completing geological surveys and 10,000 feet of diamond drilling.

On the White River, in southwest Yukon, Silver City Mines continued work on the copper deposit in Mush Lake volcanics with mapping and 10,000 feet of diamond drilling.

In the Mayo District, Hart River Mines explored their Marc Creek copper property, 80 miles northwest of Mayo, with 2,000 feet of surface and underground diamond drilling.

In the Dawson Mining District, Connaught Mines explored the Mosquito Creek property in the Sixtymile area, west of Dawson City, trenching and mapping and diamond drilling an area containing silver-bearing galena veins.

During 1970, numerous companies, supported by some 20 helicopters, explored the Dawson Range and surroundings in western Yukon, particularly the Nisling Range and Dawson City-Sixtymile areas. Work was largely stream silt geochemical prospecting. Soil sampling, geophysics, geological mapping and diamond drilling were done on some of the claim groups staked during 1969.

The Casino property was explored further by diamond and rotary drilling as well as by detailed geological mapping of bulldozer ripper trenches.

On the Venus Mines property, pre-production work, both surface and underground, was completed and in September the mill on the shore of Tagish Lake began producing silver-zinc-cadmium and lead-silver-gold concentrates.

Following a production decision announced early in the year, Hudson-Yukon Mining Company proceeded with pre-production work at the Wellgreen property west of Burwash Landing, with the object of starting production at 600 tons per day from the underground nickel-copper mine by the fall of 1971. Mill and townsite are being built at Mile 1110 on the Alaska Highway, 9 miles from the mine.

The Silver City copper property on White River was actively explored with 1,100 feet of adit being driven through the main mineralized zone.

At the Tom property near MacMillan Pass, on the Yukon-Mackenzie border, Hudson Bay Exploration and Development Company Limited explored the 5 million ton lead-zinc deposit with 6,000 feet of underground workings and 20,000 feet of diamond drilling.

MINERAL PRODUCTION AND EXPLORATION  
NAHANNI MINING DISTRICT, DISTRICT OF MACKENZIE

Full production continued at the Cantung Mine of Canada Tungsten Mining Corporation on upper Flat River, near the Yukon-Mackenzie border. In 1969, production was 203,174 STU of  $WO_3$  and 366,224 pounds of copper. The mine operates from May to September during which time a stockpile is prepared for winter millfeed. Exploration was done in the mine area and surrounding area.

During 1970, Redstone Mines Limited did diamond drilling on their copper property near Little Dal Lake.

Cerro Mining did geochemical soil sampling on their Coates Lake copper property.

WORK BY THE GEOLOGICAL SURVEY OF CANADA DURING 1969 and 1970  
YUKON AND SOUTHWEST DISTRICT OF MACKENZIE

During 1969, one reconnaissance mapping program was conducted and several special studies were made by scientists of the Geological Survey.

S.L. Blusson and D.J. Templeman-Kluit, in a helicopter supported reconnaissance, (Operation Stewart) mapped parts of Lansing (105 N), Nidderly Lake (105 O), Nadaleen River (106 C) and Bonnet Plume Lake (105 B) map-areas (pp. 29-31)<sup>1</sup> in the Hess Mountains and Bonnet Plume Range of the Yukon and western Mackenzie District. Main emphasis was the delineation of the major sedimentary features of the area. Much new information was gained on the Proterozoic and Cambrian sedimentary formations which underlie much of the area. Granitic intrusions are widespread in the Lansing and Nidderly Lake map-areas, in argillaceous host rocks. The host rocks of the Amax Tungsten

---

<sup>1</sup>Refers to pages in G.S.C. Paper 70-1, Part A, Summary of Activities.

property on Mount Allan, north of MacMillan Pass appear to be correlative with the Lower Cambrian strata which are host to the ores of the Canada Tungsten mine, 120 miles to the south-southeast.

The main structural elements recognized are upright, mostly open folds and blocks of gently dipping strata. Thrusting is mainly northeastward.

W.H. Fritz, in his studies of Cambrian rocks, measured and collected fossils from 4,400 feet of Lower Cambrian strata, largely Sekwi formation, at the headwaters of the Mountain and Arctic Red Rivers in Bonnet Plume map-area.

R.G. Garrett began a compositional study of intrusions of the eastern Yukon (p. 62). Samples from five plutons, two of which were known to be associated with tungsten occurrences, were analysed for Co, Cu, Mo, Ni, Pb, W and Zinc. Some of the compositional variations found can be related to possible mineral potential.

A.R. Cameron (p. 18), as part of a study of radioactivity in lignites, measured activity in coal-like material on Granite Creek, Amphitheatre Mountain, Cement Creek, and Ptarmigan Creek west and southwest of Kluane Lake (115 G and F) and at Kimberley Creek, Sugden Creek, and Goat Creek west and southwest of Haines Junction in Dezadeash map-area (115 A). Highest value of 22 stations was 16 milli Roentgen per hour over a background of 10 milli Roentgen per hour.

P.A. Haquebard (p. 19), in a study of economic aspects of coal in the Yukon, collected samples from three coal seams in and near the Tantalus Butte Mine near Carmacks (115 I) for petrographic correlation analysis.

J.T. Gray (pp. 192-195) completed field work on talus and pro-talus debris in the Bear River Valley in the Wernecke Mountains (Nash Creek map-area 106 D) and Tombstone region in the Ogilvie Mountains (Dawson map-area, 106 B and C). The work is the basis of a doctorate thesis (McGill University). Erosion of rock walls was calculated by estimating talus volumes and the wall areas from which the talus was derived.

During 1970, two reconnaissance mapping programs and several special studies were in progress.

S.L. Blusson completed the mapping of the areas started in 1969 and the southwest corner of Mt. Eduni map-area (106 A) (p. 19)<sup>1</sup>. The northwest part of Nadaleen River is underlain by Proterozoic strata different from sub-Cambrian rocks to the east and may represent the oldest rocks in the Mackenzie or Selwyn Mountains. The basal unit, seen near Fairchild Lake (Nadaleen River map-area) comprises some 4,000 feet of thin-bedded argillaceous and calc-silicate hornfels. The Lower Proterozoic rocks, block faulted and locally tightly folded, separated from Upper Proterozoic purple argillite by a strong angular unconformity are possibly correlative with lower Rapitan Group. Volcanic rocks - thin basaltic flows and coarse breccias - established as Middle Ordovician, were found northeast of Bonnet Plume and Misty Lakes (Bonnet Plume map-area).

---

<sup>1</sup>Refers to pages in G.S.C. Paper 71-1, Part A, Summary of Activities.



W.H. Fritz continued detailed studies of some of the Lower Cambrian strata at the head of the Arctic Red River.

D.J. Templeman-Kluit started 4-mile reconnaissance mapping in the Snag (115 J and K E $\frac{1}{2}$ ) and Aishihik (115 H) map-areas - the last two map-areas in the Yukon remaining to be mapped on reconnaissance scale (p. 34). A traverse was made across the Dawson Range and outcrops along the Yukon, White, Donjek, Ladue, Klotassin and Nisling Rivers were examined. Inflatable rubber boats with outboard jets were used on the rivers.

Much of the area is underlain by Yukon Group rocks, unconformably overlain by Mesozoic and younger volcanic and sedimentary strata. The Yukon Group metamorphic rocks are dissimilar to the late Precambrian Grit unit found elsewhere in the Territory, but are lithologically similar to upper Paleozoic strata found east of the project area.

W.W. Nassichuk (pp. 103-105), in a study of Permian rocks in northern British Columbia and Yukon, studied and collected fossils from a Lower Permian formation on the western flank of the Richardson Mountains in Bell River map-area (116 P).

R.G. Garrett, in a helicopter supported program, completed the geochemical sampling of the major bodies of acid plutonic rocks, 74 intrusions in all, northeast of the Tintina Trench (pp. 72-73), between latitudes 62° 40' N and 64° 40' N. Representative collections were made of the host rocks, including detailed sampling at the Mount Allan Tungsten property. Disseminated sulphides were found within intrusions in the MacMillan Pass area and tourmaline was commonly found only in this MacMillan Pass area. Several minor sulphide showings were found in the course of the sampling.

D.F. Sangster (p. 91), in his study of lead and zinc deposits in Canada, examined several properties in the Yukon, particularly the Tom property at MacMillan Pass - a stratiform lead-zinc deposit in baritic limestone.

R.V. Kirkham (pp. 85-88), in his study of copper deposits in Canada examined several occurrences in the Mush Lakes volcanic sequence southwest of the Shaskwak Trench; namely, those in the White River (Silver City), Quill Creek, Sockeye Lake (Johobo property), Tetamagouche Creek (Alice Lake Mines Limited) and Pickhandle Lake areas. All of these are in the Dezadeash (115 A) and Kluane Lake (115 G and F) map-areas. These occurrences have enough similarities to deposits in the Hazelton and Takla Groups of British Columbia and the Coppermine River Group in the Northwest Territories to suggest that they have had similar origins.

R.I. Thorpe (p. 94) visited and sampled several Yukon properties as part of his study of silver deposits in Canada.

P.A. Hacquebard and A.R. Cameron (p. 17) extended the work of 1969 of the coal studies in the Carmacks area, collecting samples in 6-inch increments from a 17-foot-thick coal seam exposed on the south bank of the Yukon River at Carmacks, near the bridge.

LODE MINING AND EXPLORATION

MAYO MINING DISTRICT

GALENA AND KENO HILLS AREA

UNITED KENO HILL MINES LIMITED  
7 King Street East  
Toronto, Ontario.

Silver, Lead, Zinc  
105 M 14  
(about 63°55'N, 135°29'W)

References: Boyle (1956; 1957; 1965; 1968); Green and McTaggart (1960); McTaggart (1960); Skinner (1961, pp. 21-25; 1962, pp. 22-27); Green and Godwin (1963, pp. 5-8; 1964, pp. 7-12); Green (1965, pp. 7-12; 1966, pp. 10-17); Gleeson (1966; 1967); Findlay (1967, pp. 18-21; 1969a, pp. 20-24; 1969b, pp. 10-12).

Claims: 894 claims in the Keno-Galena Hills district, five surface leases and two Crown Grants.

Location and Access:

The properties are on Keno Hill and Galena Hill, roughly 32 miles north of the town of Mayo Landing. Concentrates are trucked to Mayo Landing and on to Whitehorse, a total of 277 miles, where they are loaded on White Pass and Yukon Route railway cars for delivery to the port of Skagway, 110 rail-miles from Whitehorse.

History:

The Keno Galena Hills district has the longest production history of any lode mining area in the Yukon. The first silver-lead discovery was made in 1906, with mining starting in 1913. The rich No. 9 vein on Keno Hill was discovered in 1919, stimulating much prospecting. During the 1920's, some 10 properties were developed, with production coming from several of these. Most of the work was by the Treadwell Yukon Corporation Limited. There has been continuous production from 1919 to the present, except for the years 1942-1946.

Treadwell Yukon was succeeded by Keno Hill Mining Company Limited in 1946 which was reorganized in 1948 as United Keno Hill Mines Limited. Ventures Limited acquired control in 1960. Falconbridge Nickel Mines Limited absorbed Ventures in 1962 and remains the controlling interest in United Keno Hill Mines Limited.

Description:

The silver-lead-zinc ores of the Galena Hill-Keno Hill district occur in erratic shoots and lenses in vein faults that cut finely bedded to massive quartzites, intercalated sills and lenses and schistose rocks of uncertain age (Findlay, 1969b, p. 21).

Current Activities:

During 1969, development work went forward at four main properties in the district. At Hector Calumet, of 1,867 feet of lateral work, 104 feet were driven in ore. At Elsa, of 1,175 feet of lateral work, 76 feet were in ore. At Sadie Ladue, 406 feet of lateral work failed to develop any ore. The major development work was on the Husky Mine. The shaft for this, started in March, 1968, was put down 423 feet. Water flows were severe and a major pumping station was established at the 375-foot level. Shaft stations were completed at the 375-, the 250- and the 125-foot levels. During the year, crosscuts were driven to the ore on the 125- and 375-foot levels, with the 250-foot crosscut being started. The vein does not rank as ore at the vein - 375-foot crosscut intersection, but at the vein - 125-foot crosscut intersection, assays average 50.7 ounces silver per ton across 9 feet. The Hector Calumet and Elsa Mines provided most of the millfeed with minor production from Sadie Ladue, following rehabilitation work during much of the year. Overburden drilling was continued on several properties, with diamond drilling as well on Galena Hill around the Calumet and Elsa properties.

During 1970, a total of 5,461 feet of lateral work was done by the company, of which 1,147 feet was in ore. In Hector Calumet, no ore was developed from 823 feet of work. In Elsa, 27 feet was developed from 1,088 feet. In the Husky Mine, 1,120 feet of ore was developed in two veins from 3,439 feet of work on the 125-foot and 250-foot levels. Sadie Ladue Mine was closed following completion of mining. Further preparation for production was continued in the No Cash Mine with the driving of 111 feet. Bulk of production was from the Hector Calumet and Elsa, with minor amounts from Sadie Ladue and some development ore from the Husky also providing millfeed.

The inclusion of Husky Mine reserve figures for the first time result in the marked increase over those quoted for 1969 (United Keno Hill Mines Limited, Annual Report, 1970).



The following summary of operating results for 1968, 1969 and 1970 is from information provided by the company:

	1968	1969	1970	Cumulative (1947 to December 31, 1970)
Dry tons milled	60,800	87,663	93,215	3,095,730
Daily average (tons)	166.6	239.6	255.4	
Mill heads:				
Silver (oz/ton)	33.93	27.98	29.22	
Lead (%)	6.53	4.56	3.65	
Zinc (%)	5.55	4.67	4.35	
Metal production				
Silver (oz)	1,981,777	2,405,615	2,601,960	111,433,163
Lead (lb.)	7,418,645	7,719,096	6,583,652	404,202,184
Zinc (lb.)	6,212,589	7,845,682	7,467,164	316,401,775
Cadmium (lb.)	74,042	100,740	98,687	4,000,917
Metal sales <sup>1</sup>	\$6,053,715	\$6,863,886	\$6,854,728	
Ore reserves <sup>2</sup>	100,230	91,750	142,260	
Silver (oz/ton)	39.2	34.2	50.6	
Lead (%)	6.5	5.9	6.7	
Zinc (%)	5.5	4.3	4.6	

<sup>1</sup> Without deductions for smelter charges, freight and marketing.

<sup>2</sup> Additional reserves not presently economic for various reasons total 115,680 tons having average grade of 38.1 ounces silver per ton, 6.8 per cent lead and 5.4 per cent zinc (Findlay, 1969b, p. 11).

SILVER CHRISTAL NATURAL GAS AND MINING COMPANY  
1177 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc, Silver,  
Gold  
105 M 14  
(63°56'N, 135°27'W)

Reference: Boyle (1965).

Claims: 90 claims and fractions

Location and Access:

The claims are to the north and northwest of Elsa in the Galena Hill area. The Elsa-Keno road intersects the southern part of the property 3 miles from Elsa and a seasonal road leading to Hanson Lake extends northward across the north-eastern part of the property.

History:

The ten original claims of this property were purchased from Charlie Nord in 1968 and 80 additional, contiguous claims were staked during a period lasting until the spring of 1969.

Geochemical soil sampling on the Barb claim group in the northwest

section of the property was done in 1968. The sampling program was used to delineate areas where trenching and drilling might be employed to advantage.

Description:

The property is underlain by graphitic schist, thin-bedded quartzite, quartz-mica schist, phyllite, calcareous schist and quartzite of Precambrian and/or Paleozoic age (unit 1, Boyle, 1965). The majority of outcrops are, however, a chloritic diorite displaying a degree of schistosity near the sedimentary contacts. This diorite makes up less than 25 per cent of the total rock as revealed by trenching.

Vein-filled zones in the northwest-trending fault system in the area commonly contain quartz, siderite, galena, sphalerite and freibergite. These zones are silver-bearing with a silver to lead ratio of 3:1.

Current Activity:

Surface exploration and trenching was done and 1,000 feet of diamond drilling in seven holes was completed by August, 1969. No further work has been done.

SILVER SPRING MINES LIMITED  
440 Simcoe Street  
Victoria, British Columbia.

Silver, Lead  
105 M 14  
(63°52'N, 135°41'W)

Reference: Boyle (1965).

Claims: ALBERTA 1 to 12 and 2 fractions

Location and Access:

The property is situated on the northwest side of the Elsa-Keno road approximately 3 miles west of Elsa in the Galena Hill area of the Mayo mining district.

Description:

The property is underlain by a graphitic schist of Precambrian and/or Paleozoic age with thin-bedded quartzite, quartz-mica schist, phyllite, calcareous schist and quartzite (unit 1, Boyle, 1965).

Current Activity:

Diamond drilling was started on the property in September 1969. Underground workings consisting of 440 feet of drift and 180 feet of raise were completed by December, 1969.

Potato Hills

JAY GROUP  
Altair Mining Corporation Limited  
310 - 890 West Pender Street  
Vancouver, British Columbia.

Silver, Lead, Zinc  
105 M 13, 106 D 4  
(64°00.5'N, 135°38.5'W)

References: Green and Roddick (1962); Boyle (1965); Gleeson et al (1965, Maps 30-1964 and 31-1964); Poole (1965); Gleeson (1966); Green (1966).

Claims: JAY 1 to 40

Location and Access:

The property extends southeast from Lynx Creek,  $3\frac{1}{2}$  miles from the main summit of the Potato Hills, 30 miles northeast of Mayo Landing and 12 miles northwest of Elsa. Bulldozer trails pass within 5 miles of the property and the road to F. Taylor's Dublin Gulch placer workings is 6 miles to the west. The 1969 exploration crew flew to the property by helicopter from Mayo.

History:

The Jay claims, staked in February and April, 1969, for the Altair Mining Corporation Limited, cover ground formerly held as the G 1 to 34 claims by United Keno Hill Mines Limited in 1965 and 1966. Soil sampling and prospecting of the G group in 1965 revealed silver-lead-antimony veins which were trenced by United Keno Hill Mines Limited. The G group was allowed to lapse subsequent to this work. The Jay 1 to 16 claims were the only claims explored in 1969 and renewed in 1970.

Description:

The area is underlain by thick- and thin-bedded quartzite, graphitic schist, minor limestone and skarn (unit 2, Green and Roddick, 1962 and unit 3, Boyle, 1965) in the vicinity of the granitic intrusion along the southwest border of the claim group.

The showing discovered in 1965 (Green, 1965) occurs in the northern part of the claim group at the junction of Lynx Creek and its major tributary (Skate Creek). It consists of sheet-like zones of pale buff siderite, heavily manganese- and iron-stained, with minor galena, sphalerite, pyrite, and a grey antimony-bearing mineral (jamesonite ?) and quartz striking 40° and dipping 25° northwest, parallel to the bedding of the enclosing schist. The upper trench, dug by United Keno Hill Mines Limited, exposes a mineralized zone 20 feet long and 4 feet thick, a composite sample of which assayed 0.4 ounces of gold and 7.56 ounces of silver per ton, 1.9 per cent lead and 3.7 per cent zinc. A second trench, 60 feet downslope from the first exposes a zone 35 feet by 4 feet from which a composite sample assaying 0.03 ounces of gold and 6.80 ounces of silver per ton, 3.7 per cent lead and 3.1 per cent zinc was taken.



### Current Work and Results:

The 1969 soil sampling survey outlined a major silver-lead-zinc anomaly trending west-northwest for 2,600 feet in the northern part of the claim group which is probably associated with the 1965 showings. Smaller geochemical anomalies occur to the north and south of the major one.

ERIN GROUP	Silver, Lead, Zinc
United Keno Hill Mines Limited	106 D 3, 4
21st Floor, 7 King Street East	(64°02'N, 135°35'W)
Toronto, Ontario	
and	
Elsa, Yukon Territory.	

References: Green and Roddick (1962); Boyle (1965); Gleeson et al (1965, Maps 30-1964 and 31-1964); Poole (1965); Gleeson (1966); Green (1966).

Claims: ERIN 1 to 28 and 31 to 189

### Location and Access:

The Erin claim group lies north and west of the South McQuesten River and east of Lynx Creek, 12 miles northwest of Elsa. Following establishment of a base camp by helicopter in 1969, a J-5 Bombardier Muskeg Tractor was used for access between the camp and the road into the South McQuesten River. The tractor was also used for travel within the claim group except in the heavily wooded areas.

### History:

The property covers ground staked as the Bob 1 to 108 claims for Silver Titan Mines Limited in 1962 and the N and G groups by United Keno Hill Mines Limited in 1965. Silver Titan Mines Limited carried out a geological mapping and prospecting program in 1963 on 6 of the Bob claims in the central part of the group. The N 1 to 8 claims, which corresponded to the northern part of the Erin group, and the G group, the southeastern part of which corresponded to the southwestern part of the Erin group, were prospected and soil sampled in 1965. The Erin group was staked for United Keno Hill Mines Limited in the summer of 1969 and, subsequent to the 1969 exploration program, all but 45 claims in a northeast trending belt in the northern part of the property were allowed to lapse.

### Description:

The claims cover Yukon Group thick- and thin-bedded quartzites, graphite schist, quartz-sericite schist, greenstone and minor limestone (unit 2, Boyle, 1965) trending northwest and dipping 9° to 30° southwest except where intruded by six Cretaceous granodiorite stocks (unit 10, op. cit.). The granitic stocks are fine to medium grained with slight compositional variations near the borders of the intrusions. The largest stock trends northwest in the northwestern part of the claim group and has quartz veins associated with it, fragments of which contain grains of scheelite.

The main metasedimentary unit on the property, quartzite, underlies most of the eastern part of the claim group and also occurs as an arcuate band in the southwestern portion of the group. The thin-bedded quartzites are interbedded with graphite and sericite schists, the sericite schist to quartzite ratio increasing towards the southwest. The schists display well-defined foliation and locally exhibit wrinkled laminations, drag folds and crenulations. The greenstone occurs as large lenses of altered diorite throughout the group with the most extensive outcrops being in the east-central and south-central parts of the property.

#### Current Work and Results:

Three small showings were discovered during the 1969 geological mapping and prospecting programs in the northwestern part of the claim group:

- a) manganese- and iron-stained, drag folded quartz carbonate containing pyrrhotite and arsenopyrite, samples of which assayed 0.40 ounces silver per ton and 0.13 per cent zinc.
- b) calcite, arsenopyrite, quartz, tourmaline, stibnite, pyrite and pyrrhotite in a crushed gouge zone 2.5 feet wide which assayed 0.07 per cent lead.
- c) calcite, pyrite and quartz in a heavy limonite-stained intersection of two faults which assayed 0.02 per cent lead.

Concurrent with the geological mapping and prospecting, a 13,829-sample soil survey was carried out over the claims which outlined a major northeast trending anomaly in the northern part of the claim group. The anomaly has erratically distributed areas which are above background in silver.

A five man field crew, placed on the 45 claim Erin group in July 1970, carried out prospecting and soil sampling over specific anomalous areas found in 1969.

Prospecting did not contribute significant additional geological information because of overburden cover.

A total of 485 soil samples were taken by auger at a 1.5 foot depth and analyzed for lead, zinc and silver. It was found that, for the most part, the 1969 anomalies corresponded to swampy areas on the property and that most of the values could be attributed to organic material obtained from shallow sampling.

Auger sampling in 1970 revealed low order and sporadic lead, zinc and silver anomalies with no indications of vein-type structures.

Dublin Gulch

PAN GROUP  
C. Provencher (60%)  
General Delivery, Whitehorse  
and  
J.H. Boyce (40%)

Tungsten  
106 D 4  
(64°02'N, 135°47.5'W)

References: Keele (1904); MacLean (1914, pp. 127-159); Cairnes (1916); Cockfield (1919); Hurst (1927, p. 29); Bostock (1943); Little (1959, pp. 34-36); Skinner (1961, p. 33); Green and Roddick (1962); Green and Godwin (1963, pp. 9-10); Boyle (1965); Poole (1965); Gleeson et al (1965); Gleeson (1967); Green (1968, p. 17).

Claims: PAN 1 to 68, ARPA 1 to 40 and 57 to 88

Location and Access:

The property straddles Haggart Creek in the west and extends east along Dublin Gulch to the eastern slope of Potato Hills. A 20-mile truck road joins Mr. F. Taylor's placer operation on Dublin Gulch to the Elsa-Mayo road 12 miles west of Elsa.

History:

Placer mining on Dublin Gulch was started in 1898 and has continued to the present. The lode mining potential of the area was also realized early and extensive exploration work was done on gold-bearing stibnite-arsenopyrite-quartz veins (Keele, 1904; MacLean, 1914). Keele also reported the presence of scheelite in placer deposits; these were investigated in 1916 by Cairnes. As the demand for tungsten increased, exploration for the source of the placer scheelite gained importance and, chiefly through the efforts of Mr. R. Fisher, 10 occurrences were discovered and trenched in 1918 (Cockfield, 1918). Interest waned and no further work was done on the veins until 1942, when Harvey Ray found large blocks of float containing scheelite to the east of Dublin Gulch.

In 1960, Prospectors Airways staked the area but explored only the gold-bearing veins, (Skinner, 1961). In 1962, Rio Plata Silver Mines Limited staked the western part of the property and conducted a Turam electromagnetic survey and bulldozer trenching program which outlined a narrow silver-rich vein and a gold-bearing arsenopyrite vein.

The present claim group was staked in 1968 and early 1969 for tungsten. A geological evaluation survey was carried out on the claims in June, 1969, subsequent to which the western 38 Arpa claims were allowed to lapse.

Description:

The area was first mapped by Bostock in 1943, then by Green and Roddick (1962) and Boyle (1965). The area is underlain by Yukon Group quartz-mica schist, graphitic schist, phyllitic quartzite, minor limestone and skarn (unit 3, Boyle, 1965) where the limestone is intruded by Mesozoic (Cretaceous?) granodiorite (unit 10, Boyle, 1965). The schists and quartz-

ites form an open southwesterly plunging anticline intruded, along the north-erly side of the crest, by a northeast-trending 3-mile-long and  $\frac{1}{2}$ - to 1-mile-wide stock. A second intrusion 1-mile-long by  $\frac{1}{4}$ -mile-wide occurs to the south of Potato Hills and a third, about 1,000 feet in diameter, on the west side of Haggart Creek. Dykes of decomposed and altered granite and altered diabase also intrude the schists and quartzites (MacLean, 1914).

The Dublin Gulch area contains quartz-arsenopyrite-pyrite-jamesonite veins, cassiterite veins, and scheelite- and wolframite-bearing veins, pegma-tite bodies and skarn zones (Boyle, 1965). The gold-bearing veins occur in the metasediments along the northwest contact zone of the main intrusion. Most of the veins occur in clusters trending northeasterly and dipping south-easterly to northwesterly in faults, irregular shattered zones and fissures. Samples from the veins assayed from 0.10 to 0.50 ounces gold per ton and an assay of 1.35 ounces gold per ton and 0.53 ounces silver per ton over one foot is given in MacLean (1914).

The presence of nodules and lumps of siderite containing sphalerite, galena, jamesonite and other sulphosalts in the placer deposits suggests that siderite veins might occur in the area but these have not yet been discovered. The pyrite-jamesonite veins and cassiterite-tourmaline veins occur near the junction of Haggart Creek and Dublin Gulch. The cassiterite veins were explored by the Consolidated Mining and Smelting Company Limited in 1945 and the samples assayed averaged less than 0.3 per cent tin.

In the granitic rocks to the northeast the scheelite-bearing quartz veins form small stockworks with the veinlets ranging from 1 to 6 inches in width. The quartz and pegmatite veins in the metasediments are rare and occur mainly in the north and northeast contact zones. The scheelite also occurs as subhedral to anhedral crystals disseminated in metamorphosed lime-stone, calcareous schist and calcareous quartzite in the eastern contact zone of the granodiorite. Analyses of selected samples from the skarns indicate a tungsten oxide content ranging from 0 to 2.43 per cent.

#### Current Work and Results:

The 1969 geological program indicated that the most promising area, the north central part of the claim group, is underlain by decomposed granite and a scheelite-bearing quartz stockwork.

### DAVIDSON RANGE AREA

#### Clark Lakes

CLARK CLAIMS  
Bullion Mountain Mining Limited  
303 - 1033 West Pender Street  
Vancouver 1, British Columbia.

Lead, Silver, Zinc  
106 D 2  
(64°08'N, 134°57'W)

Reference: Green (1962).

Claims: CLARK 1 to 86



#### Location and Access:

The claims are 18 miles northeast of Keno, immediately south of Clark Lakes on the gentle north slope of the Davidson Range. An all weather road runs to McQuesten Lake, 15 miles west of the property and the Wind River Trail, a former winter road from McQuesten Lake, passes one mile north of the claims.

#### History:

The initial group of claims was staked in 1967 by prospector L. Elliott on the basis of soil and silt geochemical prospecting. Sulphide minerals were recognized and additional claims were staked in 1968, and bull-dozer stripping done. The property was purchased by Bullion Mountain Mining Company Limited in 1970 and expanded to 86 claims.

#### Description:

The rocks underlying the property are black to grey mottled limestone, minor graphitic schist and schistose, gritty quartzite (unit 3, Green, 1962) of Precambrian or Cambrian age. The trend of the foliation is northeast with a southeast dip. Work by the company indicates a northwest trending, steeply plunging antiform of quartzite within which the less competent limestone and graphitic schist are strongly folded and sheared. Sulphides, largely galena, with lesser amounts of sphalerite and minor pyrite and chalcopyrite, occur in drag folds in the limestone and with quartz and calcite fissure fillings in the faults. Most of the galena and sphalerite occurs as replacements in pipe-like bodies within the grey mottled limestone bed.

#### Current Work and Results:

Following the stripping of an area 200 feet by 250 feet by the original owner, Bullion Mountain Mining Limited did a lead-zinc geochemical survey over a cut grid on the claim group demonstrating a broad area in which the soils contain from 100 to 200 ppm of lead and zinc and eight areas, regarded as anomalous, where the lead and zinc content is greater than 200 ppm. The company drilled 11 holes in the replacement body and related 22-foot-wide quartz-carbonate feeder vein using Winkie AX equipment for a total of 530 feet. Vertical hole No. 1 cut 91 feet of mineralized replacement material.

The sulphides have a typical silver to lead ratio of 1:1 and grade of lead is typically twice that of zinc in any one sample. A grade of 9 ounces of silver per ton, 8 per cent lead and 4 per cent zinc was obtained across 31 feet of channel sample.

Aerial photographs indicate that there are many northeasterly trending fissures (mineralized veins?) crossing the thick limestone beds.

PATTERSON RANGE AREA

Beaver River

WON GROUP  
Cominco Limited  
630 Dorchester Boulevard West  
Montreal, Quebec.  
and  
Trail, British Columbia.

Zinc  
106 D 2  
(64°12'N, 134°34'W)

Reference: Green and Roddick (1962).

Claims: WON 1 to 24, 101 to 116, 121 to 130, 201 to 212 and 301 to 308, total of 70 claims.

Location and Access:

The Won group straddles the Beaver River 8 miles northwest of its junction with the Rackla River and 9 miles north-northeast of Mount Patterson. The 1969 survey crew flew to the property by helicopter.

History:

The Won claims were staked by Cominco Limited in the summer of 1968 under a joint agreement with L. Elliott of Calgary. On the basis of their work in the area, Cominco Limited optioned and maintained the north-western eight claims of the group in good standing.

Description:

The claim group is underlain by fine-grained black argillite of Precambrian and/or Cambrian age (unit 3, Green and Roddick, 1962). A few small grains of tetrahedrite were noted in quartz veins north of the northeast corner of the claim group.

Current Work and Results:

A geochemical soil survey over the northwestern eight claims outlined a significant zinc anomaly south of a line running west across the surveyed claims. The anomaly is related, according to the company geologist, to an argillite horizon containing a higher than normal amount of zinc.

Beaver River

JET GROUP  
H. Versluis  
Box 164  
Whitehorse, Yukon Territory.

Silver, Copper  
106 D 6  
(64°24'N, 135°17'W)

References: Cockfield (1924, pp. 12-13); Alcock (1930, pp. 246-247);  
Green and Roddick (1962).

Claims: JET 1 to 16

Location and Access:

The property is in the southwest Wernecke Mountains on the northwest slope of Grey Copper Hill, southeast of Carpenter Creek, a tributary of the Beaver River, and 40 miles north of Elsa. Access in 1969 was by helicopter but old pack trails join the area to Keno City and a winter road constructed by Proctor Construction Limited in 1959, is 9 miles to the southeast.

History:

Shortly after the Keno Hill discoveries in 1922, low-grade silver-lead deposits were discovered on McKay Hill to the southwest of the property. Subsequent detailed prospecting of the area resulted in the discovery of a rich vein and high grade float on Grey Copper Hill by R. Fisher in 1923 (Cockfield, 1924). The area was staked and the mineral vein on the Grey Copper King claim was trenched. An adit was also driven on a quartz vein to the east.

The Jet claims were staked in July 1968 and allowed to lapse in 1969 following a property evaluation.

Description:

The property is underlain by Precambrian metasediments and dolomite (unit 2, Green and Roddick, 1962) in the northeastern part and by Cambrian to Silurian limestone and dolomite (unit 8, op. cit.) to the south with some serpentinized volcanics (unit 8a, op. cit.) in the southwest. The contacts trend west, sub-parallel to the Beaver River.

Cockfield (1924), described the 30-inch-wide vein of siderite, freibergite and pyrite with minor quartz, malachite and azurite occupying a fault fissure striking 350° and dipping 78° southwest. A sample from the vein assayed 52 ounces silver per ton over 16 inches and siderite float in the area reportedly assayed up to 1,100 ounces silver per ton (op. cit.).

Current Work and Results:

During the 1969 property evaluation survey, slightly mineralized quartz veins containing siderite, chalcocite, sphalerite and chalcopyrite were observed in the old workings.

WERNECKE MOUNTAINS AREA

HART RIVER PROPERTY  
Hart River Mines Limited  
848 West Hastings Street  
Vancouver, British Columbia.

Copper, Zinc, Silver  
116 A 10  
(64°38'N, 136°52'W)

References: Green and Roddick (1962); Findlay (1969b, pp. 14-15).

Claims:

The property consists of three blocks of claims: the northwest block comprising the GT Fraction 1 to 5 and ZEBRA 1 to 88 claims, the central block comprising the LINDA B 1 to 9, 17 and 18, MARK 1 to 38 and MAY 1 to 6, 12 and 14 claims and the south group comprising the MARK 39 to 76 claims.

Location and Access:

The property is at the headwaters of a tributary (Marc Creek) of the Hart River in the Wernecke Mountains, 80 miles northwest of Mayo. The northwest group extends north and west from the northwest corner of the central group over the main western tributary of Marc Creek. The southern group, 1 mile south of the central group, which straddles Marc Creek, covers the southern reaches of the creek.

During the 1968-69 winter, a 64-mile winter road was constructed to the property from the Dempster Highway. During the summer, access to the property is by fixed-wing aircraft to an airstrip on the property.

History:

The main showings were discovered and staked as the Mark 1 to 24, 27 to 34 and Zebra 1 to 14 claims in June 1966. In 1967, Venture Mining Limited, in partnership with Anglo-Western Minerals Limited, optioned 38 of the claims, trenched the main showing, carried out a soil sampling and Ronka EM-16 surveying program over a 12 line-mile grid and drilled two short holes on the main showing using a packsack diamond drill. The Mark 25, 26 and 35 to 38 claims were added to the central group at that time.

In December, 1967, Hart River Mines Limited was incorporated to acquire and further develop the prospect. The 1968 program consisted of prospecting, geological mapping, soil sampling and magnetometer surveying of the claims and led to the staking of the Mark 39 to 76, May and Linda B claims in April, June and August. Thirty-one diamond drill holes totalling 7,266 feet were completed during the season.

The GT Fraction claims were added in 1969 to cover open ground within the northwest group.

Description:

Narrow bands of Precambrian argillite, shale, phyllite, dolomite, limestone, quartzite and slate (units 1 and 2, Green and Roddick, 1962) trend east and dip steeply south across the property. Locally, these sediments are



capped by Cambrian, Ordovician and Silurian thick-bedded dolomite and limestone (unit 8, op. cit.). Cretaceous intrusive/extrusive rocks of diorite composition (unit 20, op. cit.) occur as sill-like bodies, apparently conformable and locally intercalated with the sedimentary rocks (Findlay, 1969b). Company geologists have interpreted the local structure as a west-plunging anticline dislocated by a number of high angle faults trending easterly and northerly and at least one west-trending, south-dipping thrust fault (op. cit.).

Company geologists state that the main mineralized zone is in a west-trending steeply south-dipping shear-zone in the axial plane of an anticline. The zone is up to 30 feet wide and has been impregnated and partly replaced by disseminated to massive sulphides, chiefly pyrite, pyrrhotite, and chalcopyrite with minor sphalerite and galena. The sulphides occur chiefly as replacement bands along original bedding planes in the argillaceous rocks, as massive lenses near the argillite-diorite contact and, less commonly, as patchy replacement of the diorite (op. cit.). The main zone is a lens or pod of nearly massive sulphide some 50 feet thick and 250 feet long which dips 55° south and plunges 35° to the southwest.

The 1967 drilling indicated 1.58 ounces silver per ton, 1.58 per cent copper and 2.29 per cent zinc over 24 feet and 1.61 ounces silver per ton, 1.94 per cent copper and 1.8 per cent zinc over 28 feet (Northern Miner, May 23, 1968). The results of the 1968 drilling are given in Findlay (1969b).

The second showing on the central group is 3,000 feet to the south-east and consists of a series of galena-sphalerite veinlets striking north-easterly. A surface sample assayed 19.9 per cent lead, 6.95 per cent zinc and 3.10 ounces silver per ton over 5 feet.

Other areas of interest were outlined on the central group by the geochemical soil surveys. North of the main showing, coincident geochemical and magnetometer anomalies occur along the top of a ridge. Southeast of the second showing, a wide belt of copper-lead-zinc highs trends across a creek downslope from a diorite outcropping. Northeast of the main showing, a number of lead-zinc anomalies with minor copper occur over dolomite along a dolomite-diorite contact, which is sheared further to the north.

On the northeast group, two geochemical anomalies are associated with sulphide-siderite-quartz pods, parallel to the bedding in sericite phyllite, and veins in shear zones cutting serpentized diorite and phyllites near a dolomite-argillite-diorite contact. Two other copper anomalies correspond to dolomite-limestone contacts near diorite-argillite contacts.

A lead-zinc anomaly occurs on the south group at the base of a hill of dolomite and limestone.

#### Current Work and Results:

Equipment was brought to the property by way of the Dempster Highway and the winter road. In March, 1969, an adit was collared at an elevation of 3,800 feet, 300 feet below the outcrop of the main sulphide zone on the central claim group. The adit was driven south, reaching the mineralized zone 670 feet from the portal, and extended a further 170 feet through

the zone and into the argillite beyond. Drifts were turned east and west from the 670 foot position, in the footwall argillite. From these drifts, short crosscuts were driven through the mineralized zone and diamond drill stations cut at the ends of these. Total workings were 2,000 feet. A series of diamond drill holes, fanned in vertical planes at -22 to -70 degrees, were directed northward to test the zone below the drifts and crosscuts. Thirty-two holes, having a total footage of 5,400 feet, were completed. Additionally, 3,373 feet of surface diamond drilling was done in nine holes. A second adit was collared at 3,680 feet elevation and driven 200 feet.

Based on the result of the work to August 31, 1969, the company reported proven tonnage of 577,445 tons, grading 1.45 ounces silver per ton, 0.041 ounces gold per ton, 1.45 per cent copper, 0.87 per cent lead and 3.6 per cent zinc with a probable tonnage of 600,000 tons of similar grade.

A feasibility study (Northern Miner, September 4) was conducted by Kaiser Engineers during the last four months of the year.

In 1970, two diamond drill holes, totalling 2,709 feet, were drilled southwards from underground to test a similar anticlinal structure, some 1,000 feet south of the main mineralized zone. The results were negative. In addition four areas within the central claim group, which had proved to be anomalous in the 1968 and 1969 geochemical and electromagnetic surveys, were re-examined by closer soil sampling and electromagnetic surveys. One of these areas, occupying a topographic saddle 1,500 feet south of the main zone, proved to be highly anomalous and indicated a conductive body. A diamond drill program on the zone is planned for 1971.

CINCH GROUP  
New Cinch Uranium Limited  
Room 416 - 25 Adelaide Street, West  
Toronto, Ontario.

Copper, Lead  
116 A 10  
(64°36'N, 136°51'W)

Reference: Green and Roddick (1962).

Claims: CINCH 1 to 48

Location and Access:

The claims are in the Wernecke Mountains at the headwaters of a tributary (Marc Creek) of the Hart River, 80 miles northwest of Mayo. Access to the property in 1969 was by helicopter from Marc Lake 12 miles to the southeast.

History:

The Cinch claims, staked in June, 1968, were allowed to lapse in 1970.

Description:

Narrow bands of Precambrian slate, phyllite, dolomite, limestone, quartzite and argillite (units 1 and 2, Green and Roddick, 1962) trend east-

erly to southeasterly through the area and dip steeply south. These sediments are capped by thick-bedded limestone (unit 8, op. cit.) which form the predominant outcrops on the property.

#### Current Work and Results:

A soil sampling survey was carried out on the claim group in 1969 over 20 line-miles of grid. The survey outlined one copper anomaly at the base of a steep north-facing slope in the central section of the claim group. A lead anomaly occurs in a cirque in the southern part of the group.

HART GROUP  
Montana Mines Limited  
9th Floor, 850 West Hastings Street  
Vancouver, British Columbia.

Copper  
116 A 10  
(64°39'N, 136°50'W)

Reference: Green and Roddick (1962).

#### Claims:

The property consists of a main group, the claims Hart 1 to 32 and a secondary group, Hart 51 to 63, one mile to the northeast.

#### Location and Access:

The two claim groups are in the Wernecke Mountains, south of the Hart River and east of the Hart River Mines Limited property, 80 miles northwest of Mayo. Access to the property in 1969 was by fixed wing aircraft to Marc Lake and by helicopter to the property.

#### History:

The claims Hart 1 to 18 were staked in June, 1968, for Montana Mines Limited. The Hart 19 to 27 and 51 to 63 claims, staked in June, 1969, were transferred to Montana Mines Limited in August while the Hart 27 to 32 claims, also staked in June, 1969, were transferred in January, 1970. The Hart 1 to 18 were in good standing in January 1971.

#### Description:

The northeastern group of claims covers outcrops of Precambrian sediments, chiefly argillite, shale, phyllite and dolomite with minor limestone and quartzite (units 1 and 2, Green and Roddick, 1962). The central and northern parts of the southwestern group are underlain by the Precambrian sediments also but the southern claims cover areas underlain by sill-like masses of Cretaceous (?) diorite (unit 20, op. cit.). The rock units trend roughly west and dip steeply south. Float containing disseminated sulphides was noted on the claims.

#### Current Work and Results:

A stream silt sampling program of 88 samples was carried out on the two groups in June, 1969, and indicated two areas of interest. A copper-

zinc-lead anomaly occurs at the junction of two minor streams in the southeast part of the main group and a second anomaly occurs in the northern part of the main group.

## BONNET PLUME RIVER AREA

### Dolores Creek

MAMMOTH GROUP	Copper, Cobalt
Bonnet Plume River Mines Limited	106 C 13, 14
625 - 925 West Georgia Street	(64°56.1'N, 133°16.5'W)
Vancouver, British Columbia.	and (64°54'N, 133°32.5'W)

References: Findlay (1969a, pp. 30-31; 1969b, pp. 8, 16-17).

### Claims:

The main group comprises the claims MAMMOTH 1 to 108 and 201 to 216. The second group, 5 miles to the west-southwest, comprises the claims MAMMOTH 217 to 250.

### Location and Access:

The main claim group is situated 15 miles east-southeast of Fairchild Lake and 98 air-miles north of Elsa on the southwestern slope of the Bonnet Plume Range in the Selwyn Mountains, northeast of the junction of the forks of a small stream flowing into a tributary of the Bonnet Plume River, locally known as Dolores Creek. The west group occurs on the east side of a narrow valley drained to the north, by a tributary of the Bonnet Plume River and to the south by a small tributary of Dolores Creek.

Access to the property was improved in 1968 by the construction of 50 miles of winter road to connect the property with the Wind River Trail, a winter trucking route from Elsa to the Peel Plateau, and of a 2,100-foot-long by 150-foot-wide airstrip on the main claim group. A bulldozer trail from the Wind River Trail to Fairchild Lake runs along the western edge of the west group in the stream valley.

### History:

The initial discovery was made by L.J. Brown early in 1967. In the spring of that year, Mr. Brown went into joint partnership with L.I. Proctor, president of Nordex Exploration Limited and further prospecting of the area was undertaken. Other copper and cobalt showings were discovered and staked as the Mammoth 1 to 56 claims, recorded in June, 1967. Continued prospecting along with geological mapping, ground magnetometer surveying and geochemical soil sampling led to the staking of the Mammoth 57 to 108 claims in August, 1967, (Findlay, 1969a).

The Bonnet Plume River Mines Limited Company was formed to finance the 1968 program consisting of the construction of a winter road, airstrip and base camp on the property, and the preliminary prospecting and stream silt sampling of the surrounding area west to Fairchild Lake and south for



50 miles. Geological mapping and prospecting of the most promising areas led to the staking of the Mammoth 201 to 250 claims in April and August, 1968.

#### Description:

The Precambrian Katherine Group: interbedded slate, phyllite, quartzite, dolomite and limestone, is the main mineralized unit on the groups. In the northwestern part of the main claim block, this unit is folded into a broad anticline with a north-trending axis. Most of the west group is also underlain by this unit.

Overlying this unit unconformably is the Rapitan Formation composed of coarse breccia fragments of rock types similar to the Katherine Group and containing randomly distributed dioritic to gabbroic lenticular sills, dykes and small stocks. The unit's contact with the Katherine Group trends 45° across the centre of the main group, while on the west group the Rapitan Formation occurs only at the higher elevations.

The third unit is a thick carbonate sequence crossing the southeast part of the main group and dipping 20° to 40° southeast. The coarsely crystalline dolomite with numerous veinlets of calcite, quartz and siderite at the base of this unit grades into less pure dolomite with interbedded silty and cherty limestone.

Dykes, stocks and sills of syenite and quartz-diorite intrude the Katherine Group and Rapitan Formation. Ranging in width from less than 200 feet to 2,000 feet, the dykes show internal variations in texture and composition.

The main showings discovered in 1967 are described in Findlay (1969a, 1969b). The showing uncovered in 1968 consists of nearly one square mile of Katherine Group rocks cut by hairline fractures mineralized with siderite and chalcopyrite. The better grades (0.15% copper and 0.12 ounces silver per ton over 60 feet) are found in dolomites and quartzites near the contact with the Rapitan Group.

#### Current Work and Results:

During the 1969 field season, the company continued geological mapping, as well as bulldozer trenching and diamond drilling.

The property was inactive during 1970.

HESS MOUNTAINS AREA

Rogue River

HORN GROUP  
Canadian Industrial Gas and Oil Limited  
640 - 8<sup>th</sup> Avenue Southwest  
Calgary 2, Alberta.

Copper  
105 0 12  
(63°40'N, 131°30'W)

Claims: HORN 1 to 9

Location and Access:

The claim group is situated in a north-facing cirque 4 miles east of the junction of Old Cabin Creek with the Rogue River. Access is by helicopter from a base at Sheldon Lake, a distance of about 80 miles.

History:

The nine Horn claims were staked on August 12, 1968, to cover a sulphide showing.

Description:

The claims are underlain by a series of carbonate-bearing shales and banded cherts of probable Silurian-Ordovician age, capped unconformably by Tertiary volcanic material. The buff coloured shale strikes N 10° - 20° W and dips steeply eastward. It outcrops in the northwestern part of the claim group. Along the western border, a long, sinuous, brecciated and calcite-cemented zone strikes in a northerly direction.

The alternating buff and dark grey banded chert outcrops in a narrow north-striking zone. A fine-grained, dark grey-green, intensely-jointed volcanic material lies unconformably on top of the chert and outcrops in the eastern and northern halves of the claim group. Quartz carbonate material, displaying cataclastic texture, outcrops in two narrow bands in the southern part of the claim group.

The sulphide veins of interest are associated with sheared and fractured zones in the volcanics in this southern part of the claim group. The vein is exposed for about 120 feet on a near vertical arrete wall near the head of the cirque. It strikes N 20° W, dips near vertically, and is 15 feet wide (true width).

On the other side of the arrete, (1,200 to 1,500 feet), the vein is obscured by limonite-stained talus. The vein has a sharp, horizontal contact with the volcanics on top. The vein is thought to continue no further than the chert contact, giving a possible depth of 350 feet.

A second sulphide zone is exposed 30 feet south of the first zone and appears to strike N 40° W and dip 30° SW. This vein is smaller than the first and may be an off-shoot.

Current Work and Results:

Channel samples taken from the best portion of the vein showed 40% magnetic pyrrhotite with lesser amounts of interstitial pyrite and patches of chalcopyrite in euhedral quartz gangue. Sample assays gave values of 0.49 per cent copper over 5 feet and 0.21 per cent copper over 30 feet.

DAWSON MINING DISTRICT

FORTY MILE AREA

Clinton Creek

CLINTON MINE  
Cassiar Asbestos Corporation Limited  
85 Richmond Street  
Toronto, Ontario.

Asbestos  
116 C 7  
(64°27'N, 140°42'W)

References: Green and Roddick (1962); Green and Godwin (1964, pp. 19-21); Green (1965, pp. 25-27; 1966, pp. 25-26); Christian (1966); Findlay (1967, pp. 27-29; 1969a, pp. 31-32; 1969b, pp. 18-20).

Claims: 179 claims

Location and Access:

Clinton Creek joins the Fortymile River about 4 miles above the junction of the Fortymile and Yukon Rivers. The mine is 5 miles up Clinton Creek; the open-pit and primary crusher being on Porcupine Hill on the south side of the creek; the mill being on Trace Hill 1 mile away on the north side of Clinton Creek. The townsite is at the mouth of the Creek on a bench above the Fortymile River.

A 26-mile access road joins the mine to the Sixtymile Boundary road at Mile 33; road miles to Dawson City, 60; to Whitehorse, 390.

History:

The Clinton deposit was first staked in the spring of 1957 and initially explored in 1957 and 1958. Development work in 1963 and 1964 led to a production decision in 1965. Preproduction work went on during the next two years and milling began in October, 1967. Milling rate was about 2,500 tons per day during 1968. The federal government rebuilt the necessary 33 miles of the Sixtymile road from Dawson City and shared the cost of the 26-mile access road and the bridge over the Fortymile River.

Description:

The Clinton asbestos orebody is in a serpentinite lens about 4,500 feet long and 1,000 feet wide. Several ultrabasic bodies are present in the area within a mixed assemblage of metasedimentary and metavolcanic rocks which includes argillite, quartz-sericite-muscovite schist, carbonaceous limestone and chloritic schist. The serpentinite lens and the included ore zone

strike west and dip north. The section exposed in the present workings is as follows: argillite, hanging wall contact marginal quartz-carbonate alteration zone (converted from serpentine), a 20-foot gouge zone of quartz-carbonate material, barren serpentinite, chrysotile bearing serpentinite (ore zone), footwall contact and gritty, siliceous country rock termed quartzite. The hanging wall contact dips north at 45° to 55°; the footwall at 30°.

#### Current Operations:

Mining was in the third phase of a 10 year mining plan. From the initial bench at 1,710 feet in 1967, the floor of the pit was down to 1,440 feet in early 1971.

During 1969, production was all Canadian Group 4 and 5, (cement fibre). In 1970, production was increased as indicated in the operating summary and a circuit for the recovery of a spinning fibre fraction was added. Continuous production of the longer fibre, Cassiar grade CC, was achieved in early 1971.

The bulk of the output is brought to Whitehorse by truck convoy of the Transport Division of the company for transshipment to Skagway and Vancouver by the White Pass and Yukon Route railway and ship system. During 1970, some 26,000 tons were trucked to Fairbanks and Anchorage, Alaska for shipping to the port of Seattle, Washington for delivery to customers by ship.

#### Operating Summary:

	1969	1970
Mined (tons)	1,012,937	1,480,522
Milled (tons)	952,889	1,335,087
Daily average	3,048	4,049
Waste removal (tons)	3,410,710	4,536,738
Production (tons fibre)	87,820	104,386
Grade (% recovery)	9.22	7.82
Sales	\$16.3 million	\$20.8 million

---

Probable ore reserves to a depth of 200 feet below the adit, which is at 1,400 feet, are estimated at 20,500,000 tons.



SIXTYMILE AREA

Mosquito Creek

MOSQUITO CREEK GROUP  
Connaught Mines Limited  
11933 - 106 Avenue  
Edmonton, Alberta.  
and  
P.O. Box 3854  
Edmonton 41, Alberta.

Silver, Lead, Copper,  
Molybdenum  
115 N 15  
(63°55'N, 140°43'W)

References: Cockfield (1921); Green (1966, p. 28); Findlay (1967, p. 29; 1969a, pp. 32-33; 1969b, p. 20).

Claims: BEN 1 to 34 and 37 to 58, two groups of CCL 1 to 8, CEL 1 to 8, CON 1 to 200, JACK 1 to 8 and LOU 1 to 4 and 25 to 48, total of 316.

Location and Access:

The property extends east from the headwaters of Mosquito Creek, 3 miles south of its junction with the Sixtymile River and 40 miles west of Dawson. Sixty-five miles of all weather road and 7 miles of tote road join the property to the city.

History:

The presence of silver-rich galena in the Sixtymile River area has been known since the 1890's, but the Mosquito Creek veins were first staked in 1965 by J. Lerner and M. Chefkoi during a prospecting and reconnaissance geochemical sampling program (Green, 1965). The 16 CCL claims staked by the prospectors were optioned, along with the CEL and LOU claims, by A.H. Moisey of Edmonton who carried out the bulldozer trenching which uncovered the veins.

The 52-claim property was acquired by the Sixtymile Mining Company Limited of Edmonton in April, 1966, (Findlay, 1967) and the eight Jack claims were added to the property in July, 1966. The 1966 program involved limited bulldozer trenching and the shipping of 19.5 tons of material from the main showings to the Consolidated Mining and Smelting Company Limited at Trail, B.C. A limited reconnaissance electromagnetic survey was carried out near the showings in 1967 (Findlay, 1969a).

The 60-claim group was acquired by Connaught Mines Limited in 1968 and the 56 Ben claims added to it. Further bulldozer trenching was done on the claims in 1968 and in April, 1969, the 200 Con claims were staked.

Description:

The predominant rock type in the western portion of the property is Precambrian Pelly gneiss (?) (unit A, Cockfield, 1921), a quartz-plagioclase-biotite granite-gneiss characterized by numerous feldspar augen; the central part of the group is underlain by quartz-muscovite schist of the Nasina Series (unit A 1, op. cit.). The geology of the eastern part of the property is quite complex with remnants of minor rock units; quartzite, limestone and

skarns of the Nasina Series (op. cit.) occurring within and along the contact of biotite-rich gneisses with Cretaceous granitic intrusions (unit K, op. cit.).

The original property has two galena veins in the western part of the claim group. The main (No. 1 or upper) occurrence is a quartz vein containing massive galena and up to 18 inches wide, trending northeast and dipping steeply southeast. A grab sample of massive galena from this showing assayed 58.5 ounces silver per ton, 63.0 per cent lead and trace zinc (Findlay, 1969a). A second showing (lower or No. 3 occurrence) is 3 miles northwest of the main showing and consists of a lens of massive galena with minor chalcocite to 3 feet wide and 20 feet long along a northeast-trending fault. The bulk sample of ore from both these veins, sent to Trail, B.C., assayed 67.3 per cent lead, 67 ounces silver per ton, 0.06 ounces gold per ton and 0.6 per cent antimony. About midway between the two showings is a third vein some 3 to 5 feet wide, exposed for a length of 300 feet.

#### Current Work and Results:

The 1969 exploration program consisted of 46,040 cubic yards of bulldozer trenching, channel sampling, diamond drilling, geological mapping of limited areas, reconnaissance silt sampling and detailed soil sampling.

Trenching has intermittently exposed the main showing (No. 1 vein) for a length of 3,400 feet with grades averaging 22.8 ounces silver per ton, 0.031 ounces gold per ton and 19.9 per cent lead over a 4-foot width along 150 feet of the vein. A total of 1,083 feet of drilling in six holes tested the mineralized section and the best intersection graded 29.1 ounces silver per ton, 26.5 per cent lead and 0.08 ounces gold per ton over a true width of 2.2 feet.

The lower showing was mapped and channel sampled. The mineralized zone lacks continuity and the best grades were 60.7 ounces silver per ton and 67.8 per cent lead over 4.5 feet and 47.6 ounces silver per ton and 29.6 per cent lead over 2.6 feet. Two holes, having a total footage of 333 feet, were drilled on the vein with the best intersections grading 3.8 ounces silver per ton and 2.65 per cent lead over 3 feet.

The geochemical surveys consisted of a regional stream silt survey and soil surveys over three grids. The stream sediment sampling survey outlined a number of lead, copper and molybdenum anomalies which were then staked as the Con claims.

The soil survey over the western grid outlined two major lead anomalies and a number of less extensive ones, and two large, low intensity copper anomalies, apparently associated with the silver-lead veins. Trenching of the main lead anomalies uncovered a number of galena veins, one of which, in the northeastern part of the grid, grades 17.95 ounces silver per ton, 0.002 ounces gold per ton and 8.32 per cent lead over a 375-foot length and a 4-foot width.

Samples from the other veins assayed:

Width (feet)	Silver (oz/ton)	Lead (%)
0.5	59.1	60.3
2.7	22.98	28.9
1.8	48.8	33.7

Two 1,000-foot north trending and one 800-foot east trending lead anomalies were outlined on the central group by the soil survey. Associated with the lead anomalies are two closely-spaced copper anomalies covering an area 2,000 feet 1,200 feet, a Y-shaped copper anomaly and a molybdenum anomaly. Other smaller copper anomalies occur to the southwest and south of the main anomalies.

The geochemical work on the eastern grid outlined several lead anomalies trending east across the southern part of the grid. Trenches were cut across these anomalies and uncovered galena-tetrahedrite-barite veins, samples of which assayed:

Width (feet)	Silver (oz/ton)	Gold (oz/ton)	Lead (%)
2.0	64.7	0.005	62.0
4.0	166.2	0.12	52.5
0.9	29.1	0.08	38.7
3.3	32.6	0.04	24.2

The survey also outlined a large copper anomaly, about 4,000 feet by 6,000 feet, over the centre of the grid. Three molybdenum anomalies occur within and slightly to the west of the copper anomalies. Float mapping of the area indicated that the anomalies correspond to a quartz and magnetite rich phase of a highly jointed granitic stock 3 miles in diameter. No evidence of hydrothermal alteration was noticed in the float.

WHITEHORSE MINING DISTRICT

DAWSON RANGE AREA

Home Creek

VINA GROUP	Copper, Molybdenum,
Atlas Explorations Limited (40%)	Zinc, Lead
Dynasty Explorations Limited (60%)	115 J 13
330 Marine Building	(62°46'N, 139°45'W)
355 Burrard Street	
Vancouver 1, British Columbia	

Claims: VINA 1 to 241

Location and Access:

The claims are mainly at the headwaters of Home Creek to the south but also occupy part of the headwaters of Moose Creek to the west, Carlisle Creek to the north and Independence Creek to the northeast.

Access to the claims in 1969 and 1970 was by helicopter from the Yukon River, and the Uranus, Polaris and Casino airstrips.

History:

The Home Creek area was examined by Atlas Explorations Limited geologists in the course of a reconnaissance of the Dawson Range in 1969. Favourable geology and geochemical results led to the staking of 148 claims in October, 1969. A total of 93 claims were added in 1970.

Subsequent to the 1970 exploration program, the western 52 claims and the northeastern 24 claims were allowed to lapse.

Description:

The oldest unit in the area, an assemblage of Yukon Group high-grade metamorphic rocks, underlies the northeastern third of the claim group and is intruded by numerous Cretaceous and Tertiary units. Hornblende gneiss with foliation trending west-northwest and dipping steeply south occurs along the northwest-trending contact of the Yukon Group with a Tertiary granitic sill in the southernmost outcrops of the group. This unit grades into quartz-muscovite gneiss, intercalated with quartzite, with a foliation trending northwest and dipping steeply southwest. To the north, hornblende-rich gneiss is predominant with intercalated amphibolite and blue grey quartzite having a moderately southwest dipping north-northwest trending foliation.

The southern Vina claims are underlain by Cretaceous Klotassin hornblende granodiorite which grades locally to quartz diorite and quartz monzonite. These rocks are medium- to coarse grained, commonly foliated and commonly gneissic adjacent to the contacts. The foliation roughly follows the northwest trend of the intrusive contacts. Related to the Klotassin intrusions is a large, 500 foot wide, medium-grained diorite dyke intruding the Yukon Group gneiss in the central-northeastern claims.



The Tertiary intrusions comprise three sills and two small stocks of biotite-granite and dykes of alaskite and quartz monzonite. A large granite sill intrudes the northwest trending granodiorite-gneiss contact in the central part of the claim group. The sill is 1,200 to 3,000 feet thick. A second, narrower, parallel sill dipping 15° to 20° south intrudes the metasediments in the northern Vina Claims and the third sill occurs to the northeast of the claim group. One of the two small stocks, both roughly circular and about  $\frac{1}{2}$  mile in diameter, occurs in granodiorite southwest of the larger sill and the other at the granodiorite-gneiss contact north of the claim group.

Small Tertiary dykes ranging from acidic to ultrabasic in composition and porphyritic to aphanitic in texture intrude the older rock units. Fine- to medium-grained granite and rhyolite dykes are most abundant in the northern claims within gneiss underlain at shallow depth by a granite sill. The only concentration of the less abundant ultrabasic dykes is several small serpentinite dykes on a hill east of the claim group.

The Tertiary rhyolite and felsite flows, a possible terminal phase of the magmatic activity, exhibit a variety of textures and occur as discontinuous outcrops on the crest of hills in the south claims and as larger coherent cappings in the central and eastern parts of the property.

The general structural trend in the Dawson Range, as exhibited by the strike of the Yukon Group pendants, the granodiorite foliation and the trend of the Tertiary intrusives, is northwest. On the Vina claims, a second fracture direction, northeast, may represent the release of stresses generated by emplacement of the plutons. Most of the copper and molybdenum geochemical anomalies occur near the fracture intersections in the centre of the claims.

Small amounts of molybdenite, pyrite and chalcopyrite in hairline quartz veins and as fine-fracture fillings occur in four localities in the unaltered granite near the centre of the claim group. Molybdenite and chalcopyrite were also observed in vuggy granite float showing pervasive weak argillic alteration in the west-central claims. The Yukon Group quartz-feldspar-biotite gneiss along the southern sill's northern contact is rusty, veined with quartz and contains disseminated pyrrhotite, pyrite, magnetite and traces of chalcopyrite.

#### Current Work and Results:

Mapping at  $\frac{1}{2}$  inch to 1 mile scale, as well as geochemical sampling of stream sediments was carried out in August and October of 1969. Three grid areas were located on the basis of this reconnaissance work and line-cutting was started in April 1970. The grids then served as the reference for detailed soil sampling, magnetometer surveying and geological mapping at 1 inch to 1,000 feet in April to July of 1970.

The magnetometer survey outlined two small magnetic highs; one, on the northern grid over a granite dyke was caused by pyrite, pyrrhotite and magnetite at the contact, and the second one, on the central grid, is thought to be due to a similarly mineralized contact.

The geochemical survey reflects the small veins and contact mineral-

ization described with few exceptions. Erratic soil molybdenum anomalies occur over the granitic plug in the south. On the central grid, erratic molybdenum and copper anomalies reflect the presence of fine mineralized quartz veins and fractures. Lead and zinc anomalies show some correlation with the molybdenum anomalies and with rhyolite float but no galena or sphalerite was noticed. Copper, lead, zinc and molybdenum geochemical anomalies over the northern grid are believed to reflect contact mineralization in the gneiss.

FBH GROUP

Fawn Bay Development Company Limited (50%)

306 - 540 Burrard Street

Vancouver, British Columbia.

and

Hanna Gold Mines Limited (50%)

1111 - 409 Granville Street

Vancouver, British Columbia.

Copper

115 J 13

(62°51'N, 139°44'W)

Claims: FBH 1 to 48 and EX 1 to 8

Location and Access:

The property covers part of the divide between, and part of the headwaters of, Independence Creek to the north and the eastern fork of Home Creek to the south. The tote trail linking the Polaris airstrip to the Polaris main camp crosses the eastern claims of the FBH group.

History:

The FBH and EX claims were staked in December, 1969, following the discovery of a copper-molybdenum porphyry deposit on the Casino Silver Mines Limited holdings. The southern 20 claims of the FBH group were allowed to lapse in 1970 after a geochemical survey was completed.

Description:

Outcrops on and adjacent to the claim group are quartz monzonite and granodiorites of the Klotassin Batholith. The Yukon Group schist and gneisses are present 2 miles to the north of the property.

Current Work and Results:

A geochemical survey was done in 1970 with samples being taken every 200 feet along contour lines at vertical intervals of 250 feet. A copper soil anomaly measuring 700 by 4,000 feet trends north-northeast and then east along the north facing slope of the divide. An aureole of above local threshold values surrounds the anomaly and extends to the northwest.

BID GROUP  
Atlas Explorations Limited (40%)  
Dynasty Explorations Limited (60%)  
330 Marine Building, 355 Burrard Street  
Vancouver, British Columbia.

Copper, Molybdenum,  
Lead  
115 J 12, 13  
(62°45'N, 139°45'W)

Claims: BID 1 to 236

Location and Access:

The property straddles 5 miles of Home Creek, 10 miles from its confluence with the White River, and covers the northern part of the headwaters of Hungry and Tom creeks.

Access to the claims in 1969 and 1970 was by helicopter from the Yukon River and the Polaris, Casino and Uranus airstrips.

History:

The Bid 1 to 80 claims were recorded in October, 1969, on the basis of a reconnaissance mapping and geochemical program in August, 1969. Work on the claims in September and October led to the staking of the Bid 81 to 220 claims in November, 1969, while the last 16 claims were added in July, 1970. After the completion of the 1970 field program, 85 claims in the east and 53 claims in the north and northwest of the property were allowed to lapse.

Description:

The claims are underlain by granodiorites of the Klotassin Batholith, locally intruded by Tertiary granitic stocks and rhyolite dykes and capped by Tertiary flows. Intruding the coarse-grained hornblende granodiorite is an irregularly-shaped, north-trending fine- to medium-grained biotite granite body 2 miles by 3 miles, forming the stock-like eastern end of a narrow, west-trending intrusion. A second small tabular granitic stock, capped by rhyolite flows, outcrops to the northeast of the claim group. Tertiary rhyolite dykes trend west in the southern part of the group.

Small quartz-pyrite-molybdenite veins occur at the southern chloritized contact zone of a granodiorite inlier and the granite. Other quartz-molybdenite veins occur in an altered rhyolite dyke in the granite and in chloritic granodiorite float found in the northwestern part of the property. Small chalcopyrite-pyrite veins occur in fresh to weakly chloritized granodiorite in the east part of the claims.

Current Work and Results:

Two grids, totalling 28 line-miles, were cut in 1970 on the basis of the preliminary mapping and geochemical soil sampling done in 1969. The northern grid covers molybdenum soil anomalies and a corresponding aeromagnetic high on both sides of Home Creek and the southern grid covers a zone of pyrite-chalcopyrite-molybdenite veinlets and an altered granodiorite-granite contact.

The 1970 program consisted of linecutting, detailed soil sampling, magnetometer surveying and geological mapping at 1 inch to 1,000 feet. The geophysical survey did not reveal any significant magnetic anomalies and the weak geochemical anomalies on the north and south grids are associated with sub-economic quartz-chalcopyrite-pyrite-molybdenite veins. One copper-molybdenum anomaly of interest is present in the southwest part of the claim group.

#### Coffee Creek

##### CROWN GROUP

Rockland Mining Limited  
635 - 789 West Pender Street  
Vancouver, British Columbia.

115 J 14  
(62°47'N, 139°23'W)

Claims: CROWN 90, 92, 94, 121 to 128, 193 to 202, 267 to 276, 341 to 350 and GAP 1 to 5. Total of 46 claims.

##### Location and Access:

The claim group straddles the west fork of Coffee Creek 7½ miles from its junction with the east fork. Exploration crews were transported by fixed-wing aircraft to the Casino airstrip and then by helicopter to the property.

##### History:

The Crown 1 to 398 claims were staked in November, 1969, for Rockland Mining Limited. Twelve claims were renewed after the 1970 geochemical survey. The Gap claims were staked during this survey to cover open ground within the Crown group.

##### Description:

The property covers northwesterly-striking Yukon Group metasediments, including quartz-mica schist and gneiss, gneissoid quartzite and hornblende paragneiss, intruded in the south by granodiorites of the Klotassin Batholith. The dominant rock, quartz-mica schist, locally ranges from quartz-sericite to quartz-biotite schist with minor quartz-mica-chlorite schist. The schist is strongly contorted on a small and local scale but regionally strikes north-west and dips near vertically. The intrusion is medium to coarse-grained granodiorite with large euhedral hornblende crystals and abundant biotite. The only sulphide observed is pyrite in a few isolated occurrences in the metasediments.

##### Current Work and Results:

Geological mapping at 1 inch to 400 feet and soil and silt sampling over a cut grid were carried out in July, 1970. No copper or molybdenum anomalies were detected.



TONI TIGER GROUP  
Dawson Range Joint Venture  
comprising:

Molybdenum  
115 J 14  
(62°49'N, 139°28'W)

- (a) Strauss Explorations, Incorporated  
120 Broadway  
New York, New York.
- (b) Trojan Consolidated Mines Limited  
848 West Hastings Street  
Vancouver, British Columbia.
- (c) Great Plains Development Company of Canada Limited  
736 - 8th Avenue Southwest  
Calgary, Alberta.
- (d) Molybdenum Corporation of America  
280 Park Avenue  
New York, New York.

Reference: Cairnes (1917).

Claims: TONI TIGER 1 to 32

Location and Access:

The property lies in the Dawson Range on the crest of a northeast trending ridge at the headwaters of the west fork of Coffee Creek. The exploration crews and their equipment and supplies were ferried to the property by helicopter in 1969 and 1970.

Description:

The claim group lies within the north edge of a 3-mile wide pendant of Yukon Group metasediments within the Klotassin Batholith. Coarse- to medium-grained biotite granodiorite or quartz monzonite borders the claims to the north and occurs as dykes in the metamorphic terrain. Intruding this granitic batholith is a sugary-textured aplite with quartz in a matrix of feldspar crystals. The metamorphic complex contains six distinct lithologies ranging from dirty quartzite and quartz-muscovite schist to meta-argillite, greenstone and amphibolite. Some green skarn occurs scattered throughout the area but mainly in a northeast-trending zone in the southern part of the claim group.

Current Work and Results:

In September, 1969, the claims were picketed, soil sampled and prospected. The 1970 summer program consisted of bulldozer trenching, geological mapping and check geochemical sampling. A D-8 bulldozer was engaged during the period May 21 to 29 to excavate four trenches in permafrost. A total of 3,482 cubic yards of soil were moved.

Two main mineralized zones occur within the metasedimentary pendant. In the skarn zone, scheelite, molybdenite and chalcopyrite occur in quartz veins, in small streaks and blebs, and as disseminations. Two of the samples taken from trenches in this zone assayed 0.18 per cent copper and 0.003 per cent molybdenum, near the southwestern limit of the skarn zone and 0.08 ounces silver per ton, 0.08 per cent copper, 0.192 per cent molybdenum and 0.10 per

cent  $\text{WO}_3$  in the northeastern part of the zone. Southeast of the skarn zone, a patchy, discontinuous belt containing arsenopyrite, pyrite and chalcopyrite with minor molybdenite and scheelite strikes east across several rock types including meta-argillite, gneiss and gneissic skarn.

ROYALE GROUP  
Atlas Explorations Limited (40%)  
Dynasty Explorations Limited (60%)  
330 Marine Building, 355 Burrard Street  
Vancouver, British Columbia.

Copper, Zinc  
115 J 14, 15  
(62°47'N, 139°00'W)

Reference: Cairnes (1917).

Claims: ROYALE 1 to 66

Locations and Access:

The property is in the Dawson Range on a ridge between the eastern headwaters of Coffee Creek and the western headwaters of Excelsior Creek, 8 miles south of the abandoned settlement of Coffee Creek on the Yukon River 95 miles upstream from Dawson City.

Access to the claims was by helicopter during 1969 and 1970 with the men and supplies being flown by fixed-wing aircraft to the Casino, Polaris and Uranus airstrips and then to the property.

History:

The Royale claims were staked in September, 1969, on the basis of numerous pyrite-bearing sericitic intrusions coincident with an aeromagnetic high observed during a helicopter geological reconnaissance program in 1969.

Description:

Two subparallel northwest-trending pendants of coarsely to finely foliated Yukon Group gneiss in the Klotassin Batholith occur in the western part of the claim group. The southern Yukon Group body is composed of granitic and granodioritic gneiss which, at the contact with the granodiorite, is brecciated and shows intense argillic alteration but lacks sulphides. The second pendant, a wedge of fine grained laminated quartz-feldspar-biotite-hornblende gneiss, occurs in the northwest part of the claims and is cut by several intrusions. Pyrite, limonite and argillic alteration were observed in the gneiss at the contact with the batholith.

The Late Cretaceous Klotassin granodiorite ranges in texture from a fine-grained equigranular phase to a medium-grained phase with coarse-grained euhedral hornblende prisms. The granodiorite grades to quartz monzonite and granite of similar texture to the west of the claims.

The granodiorite is intruded, in the north central part of the claim group, by a Tertiary granite stock at the end of a northwest-trending dyke which intrudes the northeast edge of the northern Yukon Group pendant. The granite, sub-porphyrtytic with euhedral crystals of orthoclase up to  $1\frac{1}{2}$  inches

long, is cut by numerous aplite dykes and also occurs as dykes in the granodiorite along the stock boundaries. The granite-Yukon Group gneiss and granite-granodiorite contacts are intruded by large west- to northwest-trending Tertiary latite and dacite porphyry dykes.

Zones of alteration along the contacts of the granodiorite with the granite and gneiss are characterized by chalky feldspars, abundant quartz, abundant limonite, epidote and chlorite. Rocks are sheared and locally brecciated. Minor disseminated pyrite occurs in the gneiss and the dacite porphyry dykes.

#### Current Work and Results:

The preliminary geological mapping and soil sampling program started in 1969 at the time of staking, was expanded in 1970 over a picket line grid. The geochemical survey indicated that the geographic distribution of the samples anomalous in copper and zinc is quite irregular with only a few weak and scattered anomalies. No anomalies were outlined near the zones of alteration at the contacts of the different rock units.

PRINCESS AND DUCHESS GROUPS  
Borealis Explorations Limited  
940 - 8<sup>th</sup> Avenue Southwest  
Calgary, Alberta.

115 J 11, 14  
(62°45'N, 139°20'W)

Reference: Cairnes (1917).

Claims: PRINCESS 1 to 310 and DUCHESS 1 to 32

#### Location and Access:

The property extends in an 8-mile long by  $3\frac{1}{2}$ -mile wide belt west-northwest along the crest of the Dawson Range. The claims cover the southern headwaters of the west branch and the western headwaters of the east branch of Coffee Creek and the headwaters of Doyle Creek flowing south into the Donjek River. The Polaris airstrip, constructed and maintained by the Polaris Syndicate, is on the Princess claim group and is long enough to handle a DC-3 aircraft. Alternate access is provided by a tractor road from the Casino Silver Mines Limited property, 18 miles to the east. Casino has an airstrip and is accessible by tractor road from the Yukon River and 140 mile winter road from the Alaska Highway.

#### History:

The Princess and Duchess claims were staked in December, 1969, by J.A. Legge and D. Gosling. Borealis Explorations carried out two months of evaluation in the summer of 1970 under an option to purchase. This option was not exercised, and in September, 1970, the properties reverted to Legge and Gosling.

#### Description:

The oldest rock units in the area, Yukon Group biotite and chlorite

schist, granitic gneiss and quartzite, occur in the central and southeastern portion of the property as a northwest-trending roof pendant in an extensive batholith. The metamorphic rocks are intruded by two subparallel northwest-trending dykes of fine- to coarse-grained metagabbro along the northeast edge of the pendant.

Most of the claims are underlain by the granitic batholith composed of coarse-grained granite, quartz-monzonite or granodiorite. Fine-grained granite and aplite dykes intrude the metasediments, gabbro and coarse-grained granitic phases. Porphyritic diorite and quartz diorite dykes occur in the granitic rocks and are considered by company geologists to be a secondary phase of the main intrusion.

The youngest rocks in the area are volcanics, mainly andesite and dacite, occurring in the southwest part of the claims as small bodies overlying the older rocks. Ten per cent of the talus on the property is quartz-feldspar porphyry.

#### Current Work and Results:

The 1970 field program consisted of geological mapping at 1 inch to 1,000 feet, prospecting, and geochemical soil and stream sampling. In the course of the geological mapping, samples from narrow quartz veins and lenses in the gneiss and schist were found to contain no more than 0.05 per cent copper, 0.002 per cent molybdenum and 0.1 ounces silver per ton. Samples of metagabbro containing pyrrhotite and chalcopyrite contained traces of nickel and copper.

The soil sampling program, conducted along cut lines spaced at 1,000-foot and 500-foot intervals were tested in the field for cold extractable copper and total heavy metals. No significant anomalous patterns were detected on the claim group.

PRINCE, DUKE, KING GROUP  
Rockland Mining Limited  
635 - 789 West Pender Street  
Vancouver, British Columbia.

115 J 11, 14  
(62°45'N, 139°08'W)

Reference: Cairnes (1917).

Claims: DUKE 1 to 16, KING 17 to 32, PRINCE 1 to 16, QUEEN 1 to 16, TIE 1 to 10

#### Location and Access:

The claims are along and to the east of the east fork of Coffee Creek,  $3\frac{1}{2}$  miles from its junction with the west fork.

In 1970, access to the claims was by helicopter but a bulldozer trail leads from the Casino property to within 3 miles of the claim group. A bulldozer could be walked from this trail to the property.



History:

The Duke, King, Prince and Queen claims were registered in April, 1970, for Rockland Mining Limited. The Tie claims were staked during the 1970 field season to cover open fractions in the claim group. Eight of the Prince claims and the 10 Tie claims remained in good standing by January, 1971.

Description:

The northern half of the property is underlain by westerly-striking Yukon Group metasediments (unit A, Cairnes, 1917) intruded by the Klotassin Batholith (unit 2, op. cit.) outcropping in the southern half of the group and two small stocks of Tertiary quartz-feldspar porphyry (unit 3, op. cit.) in the western part. The metasedimentary unit includes banded quartzite, gneissoid quartzite, quartz-mica schist, hornblende paragneiss and minor amphibolite.

The Klotassin granodiorite is characterized by large hornblende crystals and abundant biotite.

The main Tertiary intrusion, 4,000 feet by 800 feet, trends northwest across the metasediment-granodiorite contact. The porphyry contains rounded quartz eyes and euhedral orthoclase crystals up to one inch in length. A second smaller body, 300 feet by 500 feet, occurs to the northwest within the metasediments.

No sulphides were observed on the property but some remnant limonite and goethite boxworks occur in the porphyry fragments.

Current Work and Results:

The results of the 1970 geological mapping and soil and silt sampling program were discouraging; no geochemical anomalies being noted.

NABOB GROUP

Delta International Minerals Limited  
1300 - 355 Burrard Street  
Vancouver, British Columbia.

115 J 11  
(62°42'N, 139°05'W)

Reference: Cairnes (1917).

Claims: NABOB 1 to 28

Location and Access:

The property is on the southwest flank of the Dawson Range at the eastern headwaters of the east branch of Coffee Creek, 12 miles south of the Yukon River. Access is by helicopter.

History:

The Nabob claims were staked in the fall of 1969 following the discovery of the Casino Silver Mines Limited porphyry copper deposit. In 1970,

the southern 10 claims were allowed to lapse.

Description:

Cairnes (1917) shows the area to be underlain by granitic rocks (Klotassin Batholith). Strongly lineated rocks, probably metasediments, (unit A, op. cit.) occur as float. Feldspar porphyry was also noted as float but no sulphides were recognized.

Current Work and Results:

In 1970, a preliminary geological report recommending a program of float and outcrop mapping and geochemical soil sampling was prepared by MacDonald Consultants Limited.

GEP GROUP	Copper, Molybdenum
E.C. Fromme	115 J 10, 11
Glenlyon Mines Limited	(62°41'N, 139°00'W)
c/o Pemberton Securities Limited	
744 West Hastings Street	
Vancouver, British Columbia.	

Reference: Cairnes (1917).

Claims: GEP 1 to 32

Location and Access:

The property trends northeast along a ridge and covers the southern headwaters of the east fork of Coffee Creek, 5 miles northeast of the confluence of Dip and Casino creeks. The 1970 survey crew was flown to the property by helicopter.

History:

The Gep claims, staked late in 1969, are registered in the name of E.C. Fromme but the 1970 work was done for Glenlyon Mines Limited.

Description:

The claim group covers part of the Klotassin Batholith consisting of hornblende-biotite granodiorite (unit 2, Cairnes, 1917). A zone of alteration in the southwestern part of the claim group is marked by chloritization of the hornblende, sericitization of feldspars and leaching of the pyrite crystals. Visible, finely disseminated pyrite occurs in the east part of the property. Incorporated into the granodiorite are small xenoliths of Yukon Group metasediments (unit A, op. cit.). The granodiorite is intruded by a small stock of medium-grained orthoclase-rich and mafic-lean granite 900 feet wide trending east for 2,000 feet in a 2,000-foot-wide belt of aplite and pegmatite dykes, the density of which decreases away from the stock. A fresh, fine-grained gabbro unit, related to the Tertiary Carmacks Volcanics, (unit 3, op. cit.) occurs as scattered boulders and thin, irregular, discontinuous dykes.

### Current Work and Results:

Geological mapping and a geochemical soil survey were carried out in 1970 over 7 miles of cut grid lines. The soil sampling survey outlined an 1,100 foot-long copper anomaly in the south-central part of the claim group and a minor molybdenum anomaly 1,500 feet to the west. The extent of the copper anomaly to the north and south was not determined.

MOTHERS AND ZAPPA GROUPS  
Dawson Range Joint Venture  
comprised of:

Copper, Molybdenum  
115 J 10  
(62°44.5'N, 138°58'W)

- (a) Strauss Explorations Incorporated  
120 Broadway  
New York, New York.
- (b) Trojan Consolidated Mines Limited  
848 West Hastings Street  
Vancouver, British Columbia.
- (c) Great Plains Development Company of Canada Limited  
736 - 8<sup>th</sup> Avenue Southwest  
Calgary, Alberta.
- (d) Molybdenum Corporation of America  
280 Park Avenue  
New York, New York.

Reference: Cairnes (1917).

Claims: MOTHER 1 to 12 and ZAPPA 1 to 8

### Location and Access:

The property lies in the Dawson Range at the headwaters of the east fork of Coffee Creek, 5 miles west of the Casino deposit. Although a rough bulldozer trail joins these two properties, the only practical access is by helicopter.

### History:

The Mothers and Zappa claims were staked by Archer, Cathro and Associates Limited on behalf of the Dawson Range Joint Venture on August 17 and August 3, 1969, to cover a geochemical anomaly discovered by regional reconnaissance silt sampling carried out in June and July, 1969.

### Description:

The claims lie within the Klotassin Batholith (Coast Intrusions) 2 miles south of a mile-wide pendant of Yukon Group metasediments. Three main rock units: foliated quartz monzonite, quartz monzonite (non-directive) and quartz porphyry, were distinguished on the property. Quartz monzonite is the major unit with a northeast-trending tongue of the two other units in the east central part of the claims and a roughly circular area, 800 feet by 1,600 feet, of foliated quartz monzonite in the southwest part of the property. The central part of the tongue is a quartz porphyry intrusion 3,200 feet by 800 feet and open to the east. The porphyry is separated from the quartz

monzonite by a 400-foot to 1,800-foot-wide belt of foliated quartz monzonite. The zone of foliated monzonite in the southwest contains remnant Yukon Group quartzite and schist xenoliths. Aplite dykes cut the quartz monzonite in a belt which trends northeasterly in the southern part of the property.

#### Current Work and Results:

The quartz porphyry is the only mineralized rock type and contains pyrite sparsely scattered along some of the fractures. The 1969 geochemical survey outlined a 24-acre molybdenum anomaly related to the quartz porphyry intrusion. A copper anomaly of 26 acres was also located one-half mile south-southeast of the molybdenum anomaly.

#### Canadian Creek

ACROLL OIL & GAS LIMITED  
660 Calgary Place One  
330 - 5<sup>th</sup> Avenue Southwest  
Calgary 1, Alberta.

115 J 14, 15  
(62°48'N, 138°46'W and  
62°47'N, 138°57'W)

Reference: Cairnes (1917).

#### Claims:

The 123 claim property consists of two blocks: an east block of 16 CAN, 16 LIN and 32 NORA claims and a west group of 26 CAN, 10 TIP and 23 TIN claims.

#### Location and Access:

The east claim block straddles 2½ miles of Canadian Creek west of its junction with Britannia Creek. The second block, 2½ miles to the west, covers the headwaters of Excelsior Creek. Access to either part of the property is by helicopter.

#### History:

The claims were staked in December, 1969, and January, 1970, and transferred to Acroll Oil and Gas Limited in April, 1970.

#### Description:

The east claim block covers the Yukon Group granitic gneisses (unit A3, Cairnes, 1917) and mica, chlorite and amphibole schists (units A1 and A2, op. cit.). The western claims are within the Klotassin Batholith (unit 2, op. cit.).

#### Current Work and Results:

An aeromagnetic survey was flown over both parts of the property in an attempt to map petrological contacts and possible structures such as faults and shear zones. The survey revealed little more than that already shown by the published aeromagnetic maps.



NEW GROUP  
Newmar Explorations Limited  
211 - 717 West Pender Street  
Vancouver, British Columbia.

Copper  
115 J 15  
(62°46'N, 138°53'W)

Reference: Cairnes (1917).

Claims: NEW 1 to 4, 23 to 38, 55 to 70, 89 to 102, a total of 50 claims

Location and Access:

The property, south of the Yukon River at the headwaters of Excelsior Creek to the west and Canadian Creek to the east, is accessible by helicopter only.

History:

The claims were staked in late 1969 north of the Casino Silver Mines Limited holdings. The area has been explored at various times since 1911 for placer gold and tungsten and silver-lead veins. Extensive programs were carried out to the south between 1964 and 1967 by Casino Silver Mines Limited and Nordex Exploration Limited, resulting in the discovery of the Casino porphyry copper deposit.

Description:

The claim group is underlain by locally foliated, grey, hornblende-muscovite granite of the Klotassin Batholith (unit 2, Cairnes, 1917); the trend of the foliation is north-northwest.

Two lineaments, one trending south for 2 miles across the centre of the claim group and a second less prominent one trending southeast to the east of the first, were interpreted by the geologist as vertical faults.

Current Work and Results:

The 1970 exploration program consisted of preliminary geological, photogeological and geochemical soil sampling surveys. The geochemical survey did not outline any extensive areas high in copper.

NEW GROUP

Trans Columbia Explorations Limited  
211 - 717 West Pender Street  
Vancouver, British Columbia.

115 J 15  
(62°47'N, 138°50'W)

Reference: Cairnes (1917).

Claims: NEW 7 to 22, 39 to 54, 71 to 88

Location and Access:

The claims, extending along 2 miles of Canadian Creek, 4 miles from its junction with Britannia Creek, are reached by helicopter.

History:

The property is part of a group of 102 New claims staked in July, 1969, for Trans Columbia Explorations Limited and transferred to Estey Agencies Limited in November, 1970.

Description:

Most of the claims are underlain by Klotassin Batholith granodiorite (unit 2, Cairnes, 1917) with the eastern edge of the property covering Yukon Group argillite and gneiss (unit A, op. cit.). There is no evidence of alteration, pyritization or Tertiary intrusions in the granodiorite on the claims.

Current Work and Results:

The claims were geologically mapped and soil sampled by Archer, Cathro and Associates for Trans Columbia Explorations Limited in September, 1969. No areas within the claims are significantly anomalous in copper or molybdenum.

Isaac Creek

FOLLY AND RAIN GROUPS  
Brewster Lake Mines Limited  
300 - 890 West Pender Street  
Vancouver, British Columbia.

Copper  
115 J 15  
(62°46'N, 138°34'W)

References: Cairnes (1917); Bostock (1944).

Claims: FOLLY 23 to 32, 45 to 54, 67 to 76, 89 to 98 and RAIN 1 to 9. Total of 49.

Location and Access:

The claim group, west of Isaac Creek and south of Sunshine Creek, is accessible by helicopter from the Casino airstrip.

History:

The Folly 23 to 98 claims were staked in November, 1969, for Brewster Lake Mines Limited and part of the group was allowed to lapse in 1970. The Rain 1 to 9 claims were added to the property in June, 1970, to cover open ground between the Brewster Lake Mines Limited property and staked ground to the north.

Description:

Bostock (1944) indicates that the major part of the property covers the northern edge of the Klotassin Batholith granodiorite (unit 3) with the northernmost claims covering Yukon Group metasediments (unit 1).

Current Work and Results:

A total of 593 soil samples were taken on the claim group in June, 1970. A copper anomaly 800 feet by 1,500 feet was recognized in the northwest part of the property. Isolated copper highs occur in an arcuate pattern south from this anomaly.

MONTE, CARLO, MAR, RAM GROUPS  
Marguerite Lake Mines Limited  
5517 - 789 West Pender Street  
Vancouver, British Columbia.  
Optioned to:  
Nippon Mining of Canada Limited  
607 - 475 Howe Street  
Vancouver, British Columbia.

Copper  
115 J 15  
(62°47'N, 138°38'W)

References: Cairnes (1917); Bostock (1944).

Claims:

The MOSS 1 to 24 claims form a secondary group located  $6\frac{1}{2}$  miles west of the main group comprising the ARM 1 to 32, CARLO 1 to 44, FOLLY 1 to 22, FREDS 17 to 20, MAR 1 to 26 and 28 to 49, MONTE 1 to 48 and RAM 1 to 40 claims.

Location and Access:

The main claim group extends west along Sunshine Creek from its confluence with Isaac Creek, across Britannia Creek and on the east bank of the main southern tributary of Canadian Creek, a distance of  $7\frac{1}{2}$  miles. The Moss group, trending east for 3 miles, straddles  $\frac{1}{2}$  mile of Excelsior Creek 6 miles from its mouth.

The main group is traversed in the western part by an 11-mile all-weather road running northward from the Casino Silver Mines Limited property to the Yukon River. During the 1970 field season, the exploration crews flew to the claim groups by helicopter.

History:

The claim groups were staked in October and November, 1969, for Marguerite Lake Mines Limited and transferred in July, 1970, to the Guaranty Trust Company Limited.

Description:

The main group lies along the northeast margin of the Klotassin Batholith. The intrusion, composed of medium- to coarse-grained granodiorite (unit 2, Cairnes, 1917; unit 3, Bostock, 1944) with large euhedral hornblende crystals and abundant biotite, outcrops in the southern half of the claim group. The northern half of the group is underlain by various Yukon Group metasediments (unit A, Cairnes, 1917 ; unit 1, Bostock, 1944) including banded quartzite, gneissoid quartzite, quartz-mica schist, hornblende paragneiss, with marble at the granodiorite-metasediments contact. The west-trending contact is irregular with granitic sills and dykes intruding the metasediments and partly incorporated xenoliths of sediments occurring within the granodiorite.

An easterly-trending andesite dyke occurs near the western edge of the main group. Small, randomly-oriented zones of quartz-feldspar porphyry and feldspar with minor disseminated pyrite occur throughout the claim group.



The Moss claim group is underlain by Klotassin granodiorite intruded in the centre of the group by a northerly-striking band of fine- to medium-grained quartz diorite with disseminated pyrite. The westernmost claims cover metasediments.

#### Current Work and Results:

Significant copper anomalies were found in four locations on or close to the granodiorite-metasediment contact on the main group. The most significant anomaly trends east for 1,800 feet in the western part of the claim group.

Between September 28 and October 6, 1970, 465 yards of bulldozer trenching was completed on the main anomaly, revealing a small section of rusty skarn, slightly mineralized with copper. A 690-yard trench was cut on a second anomaly 1,000 feet to the west.

#### TOAD GROUP

Prado Explorations Limited  
Suite 1601 - 8 King Street East  
Toronto, Ontario.

115 J 10  
(62°43'N, 138°40'W)

References: Cairnes (1917); Bostock (1944).

Claims: TOAD 1 to 80

#### Location and Access:

The claims straddle a smoothly eroded mountain ridge trending west at the head of Sunshine Creek which flows into Isaac Creek 5 miles from its confluence with the Yukon River. The 1970 program was conducted from the Hayes Creek camp of International Mine Services with the crew and equipment flying to the property from the camp by helicopter.

#### History:

The 80 Toad claims were staked in July, 1969, by employees of International Mine Services Limited on behalf of Prado Explorations Limited. The property had been staked previously but no physical work had been done.

#### Description:

The Toad group is located in the northeast portion of the Klotassin Batholith which consists of medium-grained quartz monzonite and granodiorite (unit 3, Bostock, 1944).

#### Current Work and Results:

The 1970 geochemical soil survey and geological investigation of the claim group along cut and chained lines did not outline any areas anomalous in copper or molybdenum, nor were favourable geological features recognized on the claim group.

Britannia Creek

HOP GROUP

Empire Mercury Corporation Limited  
202 - 569 Howe Street  
Vancouver, British Columbia.

115 J 15  
(62°46'N, 138°42'W)

References: Cairnes (1917); Bostock (1944).

Claims: HOP 5 to 12, 17 to 30, 33 to 52

Location and Access:

The 1970 exploration crews flew to the claim group at the headwaters of Britannia Creek by helicopter.

History:

The claims, staked on January 22, 1970, are presently owned by Empire Mercury Corporation Limited under terms of a purchase option made with the original stakers.

Description:

The claims cover part of the Klotassin Batholith (unit 2, Cairnes, 1917, and unit 3, Bostock, 1944).

Current Work and Results:

The results of a 483-sample soil survey carried out in August, 1970, were discouraging.

PEG GROUP

E.C. Fromme  
Glenlyon Mines Limited  
c/o Pemberton Securities Limited  
744 West Hastings Street  
Vancouver, British Columbia.

Copper  
115 J 10, 15  
(62°45'N, 138°45'W)

Reference: Cairnes (1917).

Claims: PEG 1 to 16 and 19 to 32

Location and Access:

The Peg claims are on the eastern border of the Casino Silver Mines Limited property along a northwest trending ridge at the headwaters of Britannia Creek. At present the most practical access to the property is by fixed-wing aircraft to the Casino airstrip and by helicopter from there to the property.

### History:

The claims were staked in July, 1969, and transferred to E.C. Fromme. The 1969 soil sampling program was carried out for Glenlyon Mines Limited.

### Description:

The main rock unit underlying the claim group is fresh hornblende-biotite granodiorite to diorite and a coarse-grained biotite-rich variety (unit 2, Cairnes, 1917). The northern outcrops of the granodiorite are coarse-grained and weakly foliated. Included in the Klotassin Batholith, is one 1,000-foot by 800-foot remnant of Yukon Group poorly- to well-banded hornblende-biotite-feldspar gneiss (unit 1, op. cit.) and numerous xenoliths. Aplitic and pegmatitic dykes intrude the granodiorite throughout the area.

### Current Work and Results:

A soil sampling survey along 7 line miles of cut and picketed grid lines in 1969 indicated the presence of a small copper anomaly in the south part of the claim group.

### Casino Creek

AZTEC, SQUAW and TLINGITS GROUP  
Trans Columbia Explorations Limited  
211 - 217 West Pender Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 J 10, 11, 14, 15  
(62°45'N, 138°55'W)

Reference: Cairnes (1917).

Claims: AZTEC 1 to 151, SQUAW 1 to 12, TLINGITS 1 to 12, NEW 5, 6, and 103 to 150

### Location and Access:

The New claim group is 1 mile northeast of the main block of claims. The claims cover the headwaters of, and the divide between, Casino Creek to the southeast and Coffee Creek to the northwest as well as the headwaters of Excelsior Creek to the north. The claims are accessible by helicopter from the Casino airstrip 6 miles to the east.

### History:

The Aztec, Squaw and Tlingits claims were staked in August, 1969 for Trans Columbia Exploration Limited. The New claims are part of a larger group staked in October, 1969, for Trans Columbia Explorations Limited and part of which, the New 5, 6, 103 to 128 and 137 to 148 claims, was transferred to Estey Agencies Limited in November, 1970.

### Description:

D.D. Cairnes (1917) mapped the area covered by the claim group as underlain by medium-grained granodiorite (unit 2) of the Klotassin Batholith.

Preliminary examination of the outcrops and rock fragments during the 1970 geochemical survey indicates that the granodiorite is slightly altered and pyritized and that light coloured porphyry occurs near the zones anomalous in copper and molybdenum.

#### Current Work and Results:

The 1970 assessment work done on the claims consisted of a soil sampling survey on a 400 foot by 400 foot grid. The survey outlined four anomalous areas, one significant molybdenum anomaly, one copper zone and two copper-molybdenum areas. Each of the four areas is at least 2,000 feet by 5,000 feet with copper and molybdenum concentrations exceeding five to ten times background. The anomalies occur along two general belts, one trending north-northwest in the northern part of the claims with an anomaly opening east onto the Casino Silver Mines Limited ground and another belt trending west near the south edge of the claim group.

CASINO SILVER MINES LIMITED  
700 - 1177 West Hastings Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 J 10, 15  
(62°43'N, 138°49'W)

References: Cockfield (1928b, pp. 11A-13A; in Bostock, 1957, pp. 576-578); Green and Godwin (1964, pp. 22-24); Green (1965, pp. 34-35; 1966, pp. 39-42); Findlay (1967, pp. 32-34; 1969, pp. 39-40); Archer and Main (1970); Phillips and Godwin (1970).

Claims: 326 claims.

#### Location and Access:

The Casino property is 190 air miles northwest of Whitehorse in the Dawson Range of the Yukon Plateau. It covers a watershed between Canadian Creek, a tributary of Britannia Creek which is a north-flowing tributary of the Yukon, and Casino Creek, a southwest-flowing tributary of the Donjek River. Access for heavy equipment during the summer is by barge on the Yukon River to Britannia Creek, from where a 10-mile tractor road has been built to the property. In the winter of 1964-1965, a 140-mile winter road was built from near Burwash Landing on Kluane Lake. This road was reconstructed and used during the winter of 1969-1970 to bring in house trailers and other heavy equipment necessary to establish a 100-man exploration camp. An airstrip, capable of handling DC-3 aircraft, is used for lighter, all season servicing.

#### History:

Recorded activity dates from 1911 when placer gold was produced from Canadian Creek. Scheelite was recognized in 1915 and placer tungsten mining was attempted in 1941 on the site of the present exploration camp. During 1963, Rio Tinto and Yukon Consolidated Gold Corporation trenched silver-bearing galena veins discovered in 1936. In 1965, Casino Silver Mines Limited was formed and investigated the veins during 1965 and 1967. The Bomber showing, consisting of veins of quartz, barite, siderite, galena and sphalerite with subordinate pyrite and chalcopyrite in a shear zone in Cretaceous granodiorite was investigated with bulldozer trenches and 1,200 feet of underground



workings. A shipment of 48.43 tons of hand-picked material, sent for smelter testing, assayed 161.1 ounces silver per ton and 68.0 per cent lead. The Helicopter showing, 3,400 feet west of the Bomber, was traced by EM surveys for 4,600 feet and found to contain minor amounts of sulphide minerals, mostly at the northern end of the structure. In 1966, a geochemical survey indicated a strong copper-zinc anomaly along a small tributary of upper Casino Creek. A gossan on this creek was diamond drilled in 1967. That the gossan was transported directed attention to the upland (Patton Hill) above the stream. The 1968 geochemical survey indicated strong copper-molybdenum anomalies in this area, essentially coincident and some 3,000 feet in diameter.

#### Description:

The property lies along the northeast margin of the Klotassin Batholith, here the eastern unit of the Coast Range Intrusions. Locally the rocks are medium-grained biotite quartz monzonite and granodiorite. The age, as indicated by the potassium-argon method, is in the 95 to 99 m.y. range or late Cretaceous (Findlay, 1967, p. 40). The Klotassin rocks intrude metasedimentary units of the Yukon Group, here schist, gneiss and quartzite with minor marble and conglomerate. The metasediments, particularly quartzite, are present as roof pendants in the granodiorite.

Intrusive into the Klotassin Batholith is the Casino Stock, dated at 70 m.y. or early Tertiary (Archer and Main, 1970) 5,000 feet long by 2,000 feet wide, trending west. Several phases are present, indicative of a complex igneous history. The eastern half of the stock is largely a coarse breccia having a quartz porphyry matrix; the eastern half is mostly feldspar porphyry. The Casino Stock has been intensely hydrothermally altered with some alteration affecting Klotassin rocks at least 2,000 feet from the Casino-Klotassin contact. The zoned alteration pattern observed is one typical of porphyry copper deposits. An irregular central area has potassic alteration, characterized by secondary K-feldspar and biotite, with iron oxides and tourmaline, followed successively outward by an advanced argillic zone containing muscovite-sericite, abundant tourmaline and small quartz veins having quartz-sericite envelopes. Peripheral to the advanced argillic zone is an area of phyllic alteration identified by marked development of sericite, moderate amounts of secondary quartz and minor clay. The argillic zone is characterized by strong development of clay with minor sericite, calcite and chlorite; the outer or propylitic zone contains abundant chlorite and calcite with minor epidote and gypsum.

#### Current Work and Results:

Since true outcrop is rare on the Casino property and confined to ridges, the understanding of rock types and distribution is from bedrock float and drill samples. During 1969 and 1970, bulldozer ripper furrows were cut in this largely permafrost area to depths of 2 feet on lines 400 feet apart, through the vegetation, organic debris and mineral soil to a zone containing abundant bedrock float. Observations were made and samples collected every 100 feet along 240,000 feet (45 miles) of these furrows. An attempt was made to distinguish between bedrock float and possible transported material. Under binocular microscope examination, several salient features were noted (Phillips and Godwin, 1970):

- (a) rock type of probable underlying rock,
- (b) silicification intensity, alteration facies and intensity,
- (c) limonite data where the intensity and proportions were estimated by the colour of the limonite streak (jarosite-yellow; goethite-brown; and hematite-red),
- (d) associated minerals, especially hematite, magnetite, tourmaline, pyrite, chalcopyrite, chalcocite and molybdenite,
- (e) structural relationships such as closely spaced parallel fractures and cross-cutting quartz veins with quartz-sericite envelopes,
- (f) transported float.

Chip specimens were taken for analysis of: Cu, Pb, Zn, Mo and W. Reduced data were plotted on a series of maps at a scale of 1 inch to 400 feet.

Diamond drilling from May to December, 1969, was 22,000 feet in 30 holes, roughly on 800-foot spacing, and provided sufficient information to indicate possibility of a large, low-grade, copper-molybdenum deposit. Greater than one billion tons of 0.38 copper equivalent was inferred (Northern Miner, December 21, 1969). A further 15,000 feet of diamond drilling was done in 1970. As core recoveries in a leached capping and supergene zone were poor, and caving serious, particularly in higher grade intervals, rotary drilling was tried on the property from January to August, 1970. The larger hole and use of air as a drilling fluid were expected to produce a better sample at less cost than diamond drilling. During operations, much effort went to confirming the quantity of the samples. From sample weight, specific gravity and hole size, a sample recovery of 95 to 100 per cent was determined. Dry cuttings were separated from the return air by cyclone. Initially, wet cuttings were separated from return water by running the return fluid into tanks. A screen over the tank caught the coarser fraction while a fine nylon mesh over an outlet nipple caught the fine fraction. A commercial sampler, used during the later part of the drilling, splits the sample while the cuttings are still in suspension, catches coarse cuttings on a 20-mesh screen and removes fines down to 340 mesh with a cyclone. Thirty-five of these 4 7/8-inch rotary holes were drilled for a total of 17,772 feet. The 1970 drilling, both rotary and diamond, largely filled in, at 400-foot spacing, the 800-foot grid of 1969.

From the study of lithology, alteration facies and distribution of tourmaline and hematite-magnetite, the following interpretation of the mineralization pattern for copper and molybdenum was made (op. cit., p. 45). Mineralized zones are:

- (1) mainly within breccia,
- (2) outside the hematite-magnetite area defined by the hematite-magnetite line,
- (3) related to the outer margin of the potassic alteration zone,
- (4) inside the tourmaline line.

The breccia seems to be the most important factor of the above.

Following completion of the work described, Brameda Resources announced for the Casino property, mineable reserves of 179 million tons of material having a grade of 0.37 per cent copper and 0.023 per cent molybdenum for a copper equivalent of 0.45 per cent, at a stripping ratio of 1.67 to 1.0.

BRAN GROUP  
New Davies Petroleums Limited  
and  
Kopan Developments Limited  
10<sup>th</sup> Floor, 366 Bay Street  
Toronto 110, Ontario.

115 J 10  
(62°40'N, 138°55'W)

Reference: Cairnes (1917).

Claims: BRAN 1 to 24

Location and Access:

The Bran group is on the south flank of the Dawson Range at the headwaters of a small stream emptying into Dip Creek 4 miles downstream from the mouth of its tributary, Casino Creek. Access to the property is by helicopter only.

History:

The Bran claims, staked in October 1969, were acquired by New Davies Petroleums Limited from W. Brander and W.J. Travers in November.

Description:

The property is underlain by Cretaceous granitic rocks (unit 2, Cairnes, 1917) of the Klotassin Batholith.

Current Work and Results:

A magnetometer and soil sampling survey carried out in 1970 did not outline any anomalies of interest.

HOLE GROUP  
Coin Canyon Mines Limited  
508 - 850 West Hastings Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 J, 10, 11, 14, 15  
(62°43'N, 139°00'W)

Reference: Cairnes (1917).

Claims:

The property consists of two groups, the south block comprises the claims HOLE 1 to 8, 10, 13 to 22 and 25 to 34; the north block comprises the claims HOLE 36 to 152.

Location And Access:

The south block of 38 claims, west of the Casino Silver Mines Limited property, straddles a tributary of Casino Creek which flows southeast into the creek 3 miles from its confluence with Dip Creek. The north block, originally of 108 claims, extends west from the northeast corner of the Casino Silver Mines Limited claim group along the southwest slope of a northwest-

trending ridge to the east fork of Coffee Creek, 3 miles from its junction with the west fork. A road extends from the Yukon River to the Casino airstrip 3 miles east of the Hole claim blocks.

History:

The property was staked in October, 1969, adjacent to the Casino Silver Mines Limited holdings. The northern 80 claims of the north claim block were allowed to lapse in 1970 subsequent to a geochemical silt and soil sampling program.

Description:

The south claim group and the eastern part of the north block are underlain by granodiorite and monzonite of the Cretaceous Klotassin Batholith (unit 2, Cairnes, 1917). These rocks intruded the Yukon Group schist and gneiss (unit A1, op. cit.) which underlie the western part of the north claim group.

Current Work and Results:

In 1970, Coin Canyon Mines Limited prospected the Hole claim group and carried out a silt and soil sampling program which indicated two molybdenum anomalies with coincident minor copper anomalies. On the south group, the molybdenum soil anomaly extends across the claim group from east to west in the north-central part with anomalous silt values occurring in the stream downslope to the south. A less prominent anomaly occurs in the silt of the southern part of the north claim block.

CASH AND GUN GROUPS

La Ronge Mining Limited  
248 - 2nd Avenue  
Kamloops, British Columbia.

Copper  
115 J 10  
(62°40'N, 138°52'W)

Reference: Cairnes (1917).

Claims: CASH 1 to 24 and GUN 251 to 258 and 281 to 288

Location and Access:

The Cash and Gun groups of 40 claims extend southeast over the junction of the Casino and Dip creeks north of Stevenson Ridge. A winter road follows Casino Creek through the property but because of muskeg, summer access is by helicopter.

History:

The claims were staked in December, 1969, adjacent to the southern border of the Casino Silver Mines Limited property. Since the completion of the 1970 geochemical survey, the Gun claims have lapsed.



Description:

The few outcrops on the claim group are composed of coarse-grained quartz monzonite to granodiorite of the Klotassin Batholith (unit 2, Cairnes, 1917). The composition of the rock is 55 per cent orthoclase with some sodic plagioclase, 15 per cent quartz and 30 per cent mafic minerals, mainly large, impure stubby crystals of pyroxene with biotite inclusions. Minor inclusions of Yukon Group metasediments (unit A, op. cit.) and secondary intrusions of aplite and pegmatite dykes as well as basic dykes of the Carmacks Volcanics are present in the granodiorite.

Current Work and Results:

A reconnaissance geochemical survey was carried out along cut lines 3,000 feet apart in August, 1970. The soil sampling program detected two anomalies labelled Zone A, a copper anomaly and Zone B, a molybdenum anomaly. Zone A extends southeast in the east-central part of the claim group across and to the east of Casino Creek and is open to the east. Zone B, the molybdenum anomaly, occurs in the northeast part of the claim group and the source of the molybdenum may be further north on the Casino Silver Mines Limited property.

CUB CLAIMS

Cleveland Mining and Smelting Company Limited  
615 - 850 West Hastings Street  
Vancouver 1, British Columbia.

Copper, Molybdenum  
115 J 10  
(62°40'N, 138°52'W)

Reference: Cairnes (1917).

Claims: CUB 2 to 16 and 18 to 48

Location and Access:

The property lies on the southern flank of the Dawson Range north of Dip Creek and west of Casino Creek at their confluence. The winter tote road joining the Alaska Highway at Mile 1097 to the Casino Silver Mines Limited camp follows the Dip and Casino creeks, and passes one half mile southeast of the Cub property.

History:

The Cub 2 to 16 and 18 to 36 claims were staked in December, 1969, with the Cub 37 to 48 claims being added in July, 1970, to cover open ground to the southeast.

Description:

The claim ground is underlain by hornblende granodiorite (unit 2, Cairnes, 1917) of the Dawson Range Batholith. A preferred alignment of the hornblende and biotite locally gives the intrusive rock a slightly gneissic texture. Some coarse-grained gabbro occurs in the northwest part of the claim group. The batholith is intruded by two small dyke swarms of medium- to fine-grained granite in the western part of the group. A small body of Yukon

Group quartzites with minor phyllite (unit A1, op. cit.) and a small basalt porphyry stock occur between the dyke swarms. Two small limonite gossans with zones of secondary carbonate and manganese staining occur in the granite intrusions.

#### Current Work and Results:

The 1970 field program consisted of geological mapping at 1 inch to 400 feet and soil sampling of the claim group along 41 line miles of cut grid. One continuous 3,000 foot long east-trending zone, anomalous in copper and molybdenum, was outlined in the centre of the claim group.

#### Rude Creek

AXE AND HILL	Copper, Molybdenum
Montana Mines Limited	115 J 10
Box 302	(62°40'N, 138°32'W)
Whitehorse, Yukon Territory.	

References: Cairnes (1917); Bostock (1944).

Claims: AXE 1 to 6 and HILL 1 to 24

#### Location and Access:

The claims are at the headwaters of the east branch of Rude Creek on the northwestern slope of Mount Cockfield. Access is by a winter tractor trail running from the Casino airstrip to just north of the property. Summer service is by helicopter.

#### History:

Of the 30 claims staked in December, 1969, for Montana Mines Limited, Hill claims 1 to 11 and 22 were retained in good standing subsequent to the 1970 geochemical survey. The claims cover part of a larger area staked and explored for silver-lead veins by Nordex Exploration Limited in 1966. The 1966 program consisted of a geochemical silt sampling and engineering study.

#### Description:

The main rock type present is a medium- to coarse-grained granite or granodiorite of the Cretaceous Klotassin Batholith (unit 3, Bostock, 1944 and unit 2, Cairnes, 1917). Locally, the rock is porphyritic with prominent feldspar phenocrysts. Pyrite and magnetite occur as disseminations and fracture fillings.

#### Current Work and Results:

The 1970 reconnaissance geochemical survey indicated an area of pyrite-bearing granite in the east central part of the Hill claims to be anomalous in copper and molybdenum.

Leslie Ridge

VIC GROUP  
Great Horn Mining Syndicate Incorporated  
Suite 1601 - 8 King Street East  
Toronto 1, Ontario.

Copper  
115 J 10  
(62°38'N, 138°35'W)

References: Cairnes (1917); Bostock (1944).

Claims: VIC 1 to 96 and 109 to 112

Location and Access:

The property straddles the upper east end of the Victor Creek Valley on the west flank of Mount Cockfield and extends west for 7 miles along the south flank of Leslie Ridge. The 1970 follow-up program of prospecting and geochemical soil sampling was helicopter supported from the International Mine Services Limited camp on Hayes Creek.

History:

The 100 Vic claims were staked in September 1969, to cover a silt copper-molybdenum anomaly in Victor Creek discovered during a regional geochemical survey in the Dawson Range. The central part of the group corresponds to the southern part of the Ray group, staked and explored for silver-lead deposits by Nordex Explorations Limited in 1966.

Description:

The property is underlain by rocks of the Klotassin Batholith, in this area a medium- to coarse-grained quartz-rich biotite-hornblende monzonite (unit 3, Bostock, 1944 and unit 2, Cairnes, 1917).

Current Work and Results:

The geochemical survey of 1970 consisted of 1,284 soil samples taken along an east-trending base line with perpendicular grid lines. The survey indicated one anomalous copper zone trending east for 2,400 feet along the northern limit of the claim group on claims number 2 and 4 in the northeast corner.

STU AND MIST  
Nickel Hill Mines Limited  
848 West Hastings Street  
Vancouver, British Columbia.  
and  
Pathfinder Resources Limited  
602 - 789 West Pender Street  
Vancouver, British Columbia.

Copper  
115 J 10  
(62°40'N, 138°37'W)

References: Cairnes (1917); Bostock (1944).

Claims: STU 1 to 22, 81 to 228, MIST 1 to 8, RODGER 1 to 28, a total of 206

Location and Access:

The 206 claims were staked in an east-trending belt covering the headwaters of Rude Creek north of Leslie Ridge and 6 miles southwest of the Casino Property. Access by the Casino Silver Mines Limited winter road from Burwash Flats on the Alaska Highway supplements helicopter servicing during the summer.

History:

Following staking of the Stu and Mist claims in 1969, the eastern 40 of the Stu group were allowed to lapse in 1970. The claim groups cover the southwestern part of the 536-claim group staked and explored in 1966 by Nordex Explorations Limited and Aishihik Explorations Limited for silver-lead deposits.

Description:

The property is underlain by granites and granodiorite of the Cretaceous Klotassin Batholith (unit 3, Bostock, 1944 and unit 2, Cairnes, 1917).

Current Work and Results:

The 1970 silt sampling program indicated a copper anomaly 1,200 feet long in the valley of Rude Creek in the southern part of the claim group. Subsequent grid soil sampling failed to indicate the source of this anomaly.



Mt. Cockfield

CO CLAIMS  
United Keno Hill Mines Limited  
7 King Street East  
Toronto, Ontario.

Molybdenum, Copper  
115 J 9  
(62°39'N, 138°30'W)

Claims: CO 1 to 52

Location and Access:

Newmont staked the CO claims in July of 1969 on the basis of reconnaissance silt sampling. The property lies on the northwest flank of Mount Cockfield, covering the valley of the west fork of Battle Creek, a tributary of the Selwyn River. Casino Silver Mines property is 10 miles to the northwest.

Description:

The main rock unit is a late Cretaceous or Tertiary stock of coarse-grained quartz monzonite containing large orthoclase feldspar phenocrysts, intrusive into the Cretaceous Klotassin Batholith and the Yukon Group metasediments and Mt. Nansen Volcanic complex. Klotassin rocks flank the stock on east, north and west. The stock is crudely triangular in outcrop pattern, trending northwest with a length of 2 miles and a base of 1 mile. The southeast corner of the stock is on the adjacent DR claims of the Dawson Range Joint Venture. The Yukon Group metasediments and the felsites and basalts of the Mt. Nansen Volcanics outcrop along the southern edge of the stock. Pervasive alteration is lacking; that observed being essentially restricted to fracture planes. Molybdenite and chalcopyrite occur with quartz in a stockwork or system of anastomosing veinlets typically one-eighth inch thick spaced 1 to 3 feet apart. Pyrite, with minor chalcopyrite and molybdenite, is present along fractures in the Mt. Nansen Volcanics.

Current Work and Results:

Following initial discovery and staking, Newmont Mining Corporation completed a soil geochemical survey in 1969, getting an erratic pattern of high copper and molybdenum results. After optioning the property, United Keno Hill Explorations did a chip sampling, rock geochemical survey over the abundant talus slopes, obtaining results similar to those of the 1969 soil survey of 0.02 per cent copper, 0.015 per cent molybdenum. Seven miles of I.P. work was also done. A 6-hole diamond drilling program, a total of 4,584 feet, was completed during July. Grades were consistently similar to those in the surface rocks with ore grade sections not found.

The option was dropped by United Keno Hill Mines following the 1970 field work.

MO GROUP  
Glenlyon Mines Limited  
c/o Pemberton Securities Limited  
744 West Hastings Street  
Vancouver, British Columbia.

Copper  
115 J 9  
(62°38'N, 138°22'W)

Reference: Bostock (1944).

Claims: MO 1 to 14 and 17 to 32

Location and Access:

The claims are 2 miles east of Mount Cockfield and 2 miles west of the Selwyn River. In 1970, access was by fixed-wing aircraft to the Casino airstrip and by helicopter from the airstrip to the property.

History:

Staked in July, 1969, for H.C. Fromme, the claims were transferred to Glenlyon Mines Limited in November, 1970.

Description:

The claims are underlain by Cretaceous hornblende-biotite granodiorite-diorite which grades into quartz diorite and quartz-feldspar porphyry. Associated with this intrusion are small fine- to medium-grained aplitic dykes and some pegmatitic veins. Two other rock units, associated with the Tertiary Carmacks Group volcanics, are basic dykes and fresh, fine-grained andesite-dacite porphyry.

Current Work and Results:

The soil sampling survey along 7 miles of picket lines in 1970 outlined three copper anomalies in the southern portion of the property. Two of the anomalies, 800 feet and 400 feet long of unknown widths, occur on the northeast slope of a northwest-trending ridge of outcrop and the third 1,500-foot-long anomaly occurs on the southwest slope of the ridge. The anomalies are over a complex zone of intrusive rocks.

MT. COCKFIELD  
Dawson Range Joint Venture

Copper, Molybdenum  
115 J 9  
(62°38'N, 138°25'W)

References: Bostock (1944); Cairnes (1917).

Claims: DR 1 to 64, PATSY 1 to 8

Location and Access:

The claims were staked in July of 1969 by Archer, Cathro and Associates on behalf of the Dawson Range Joint Venture on the basis of copper-molybdenum stream silt anomalies recognized during the reconnaissance geochemical exploration of the Dawson Range. The claims cover the northeast side of Mt. Cockfield at the head of Battle Creek, a tributary of the Selwyn River and the southeast side of the mountain, which is drained by an east-flowing tributary of the Selwyn. Access during 1969 was by helicopter.

Description:

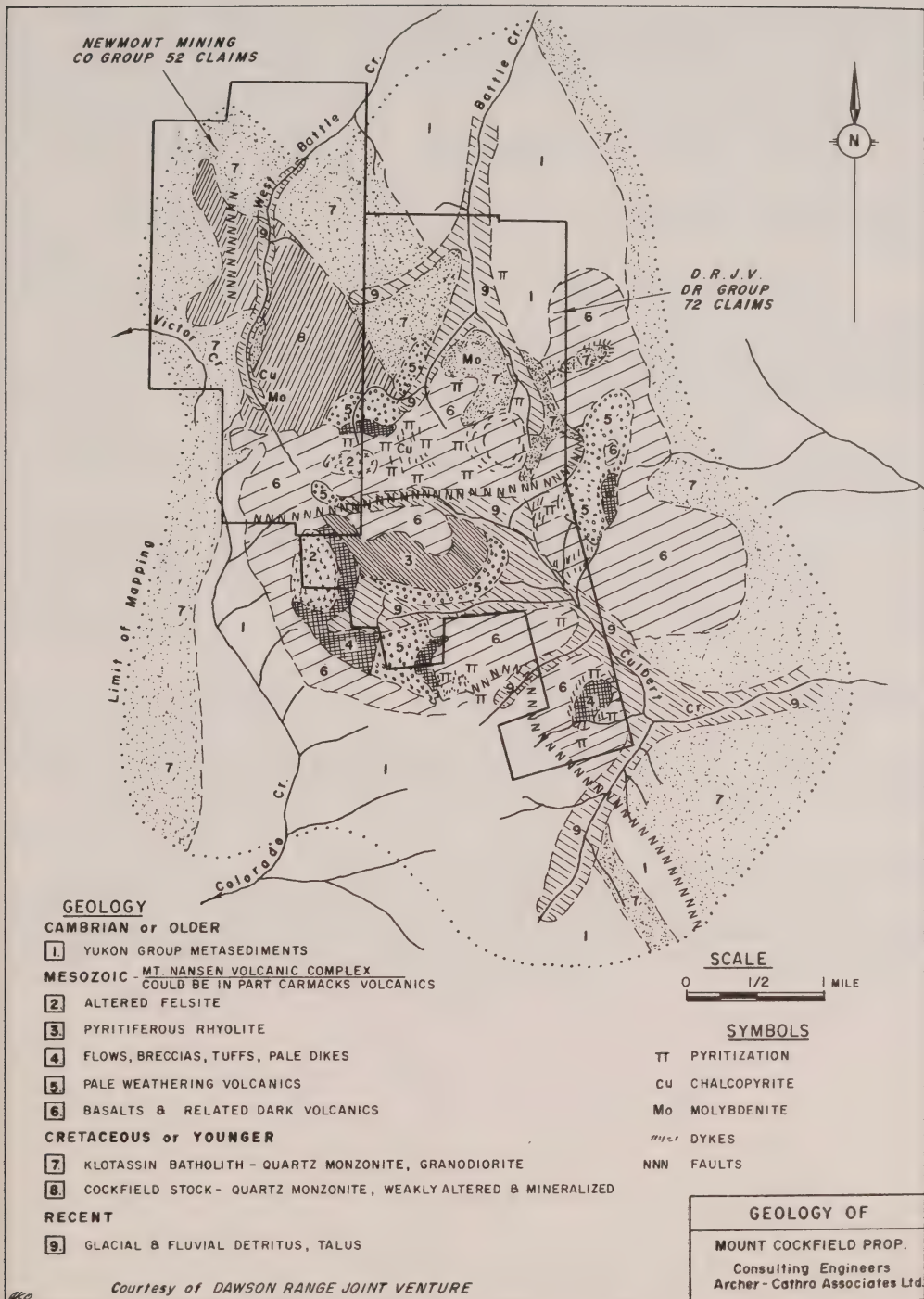
The claim group covers a Mount Nansen Group (unit 2, Bostock, 1944) volcanic erosion remnant on the central part of a north trending pendant of Yukon Group metavolcanics and metasediments (unit 1, op. cit.) in the Klotassin Batholith (unit 3, op. cit.). The Yukon Group outcrops in the northeast on both banks of Battle Creek and to the southwest of the property. On the east side of Battle Creek, rocks are schist, gneiss and feldspathic quartzite in a greenstone and amphibolite sequence. West of the creek is quartz-feldspar gneiss. In the southwest, the Yukon Group rocks are in a northwest trending probable fault contact with basalts of the Mount Nansen Volcanic Group.

Most of the Mount Nansen rocks present are basalts but included are acid flows, breccias, tuffs and dykes in the central and western part of the claim group. The acid volcanic rocks in the southwest breccias contain fragments of older rocks in a quartz porphyry matrix. The porphyry breccia grades into an altered, vuggy, cleaved felsite or rhyolite. This vuggy rhyolite caps the two summits of Mt. Cockfield. The main intrusion into these volcanics and metasediments is quartz monzonite of the Klotassin Batholith. This quartz monzonite has a boundary phase of quartz, feldspar and pyrite in a grey groundmass as a northwest-trending zone in the northern portion of the property.

Chalcopyrite and molybdenite occur near the contact of Klotassin quartz monzonite and Mount Nansen basalt in the central part of the claim group. The chalcopyrite is with quartz and pyrite in erratically and widely spaced fractures in the basalt; the molybdenite is in quartz veins in the quartz monzonite. The intrusive rocks do not show the strong hydrothermal alteration and complexity of rock types as does the more pervasively mineralized Casino Stock.

Current Work and Results:

In addition to the geological mapping, a soil geochemical survey, completed in 1969, outlined a molybdenum anomaly 2,000 feet by 1,000 feet over quartz monzonite in the east-central part of the property and a copper anomaly



Courtesy of DAWSON RANGE JOINT VENTURE



4,000 feet by 2,000 feet over pyritiferous rhyolite, altered felsite and basalt in the west-central part of the claim group. The property was inactive in 1970.

Selwyn River

CROCK GROUP  
Dawson Range Joint Venture

Copper  
115 J 9  
(62°33'N, 138°16'W)

Reference: Bostock (1944).

Claims: CROCK 1 to 24

Location and Access:

The claims lie on the east bank of the Selwyn River 18 miles from its mouth and 9 miles southeast of Mount Cockfield. The property is readily accessible by helicopter.

History:

The Crock claims were staked by Archer, Cathro and Associates Limited on behalf of the Dawson Range Joint Venture to cover a geochemical anomaly discovered during the 1969 regional reconnaissance silt sampling survey.

Description:

A small stock of hornblende monzonite intruding the quartz monzonite (unit 3, Bostock, 1944) of the Klotassin Batholith underlies the claims. The stock has a chilled margin near which disseminated chalcopyrite has been found.

Current Work and Results:

The preliminary program of prospecting, geological mapping and soil sampling conducted during August, 1969, found minor disseminated chalcopyrite but copper, molybdenum and lead content of the soil was quite low.

Hayes Creek

HAY GROUP  
Nicanex Mines Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia.

Copper  
115 J 9  
(62°42'N, 138°10'W)

Reference: Bostock (1944).

Claims: HAY 1 to 90

Location and Access:

The Hay group is at the headwaters of a tributary of Hayes Creek, 6 miles southeast of its junction with the Selwyn River. Access to the property is by helicopter either from the Mayo road near Minto or from the Casino airstrip.

History:

The Hay claims were staked in October and acquired by Nicanex Mines Limited from the stakers in December, 1969. Seventy of the claims were allowed to lapse in 1970; only the twenty northeast corner claims being maintained.

Description:

The claims, staked on the basis of aeromagnetic and geological information, are underlain by the Cretaceous granitic rocks of the Dawson Range Batholith (unit 3, Bostock, 1944). The rocks outcropping on the property are coarse- to medium-grained biotite granodiorite with some medium-grained hornblende diorite and granodiorite.

Current Work and Results:

A four-man crew carried out a soil sampling survey of the claim group in 1970. Two areas weakly anomalous in copper were detected. One anomaly occurs to the southeast in a poorly drained topographic depression. The second and major anomaly occurs at the northeast edge of the group and is covered by the 20 claims retained in good standing.

HAYES CREEK PROPERTY  
Delta International Minerals Limited  
1300 - 355 Burrard Street  
Vancouver, British Columbia.

Lead, Silver, Copper,  
Molybdenum  
115 I 12  
(62°38'N, 137°55'W)

Reference: Bostock (1936a).

Claims: HAYES 1 to 32

Location and Access:

The property is on the east bank of Hayes Creek, 10 miles from its junction with the Selwyn River which then flows north 6 miles into the Yukon River. The nearest airstrip is on the International Mine Services property, 6 miles to the southeast. The mouth of the Selwyn, 5 miles north, can be reached by travelling 50 miles downstream on the Yukon River from Minto. A 35 mile tote road, suitable for tracked vehicles, connects the Yukon Revenue Creek end of the Discovery-Carmacks road with the property, but the 1969 and 1970 exploration crews travelled to and from the property by helicopter.

History:

The claims Hayes 1 to 20 were staked by J. Lerner and associates and Hayes 21 to 32 by B. Rouleau and R.L. McKamey in March and October of 1969 to cover a stream sediment anomaly in Hayes Creek and its tributaries, detected in 1965 during a regional prospecting program. Delta International Minerals Limited acquired the claims in February, 1970.

Description:

The main rocks underlying the claims are Yukon Group metasediments (unit 1, Bostock, 1936a), predominantly mica-quartz schist, chlorite schist and quartz-mica gneiss. In the northeast corner of the group a northwest-trending band of limestone (unit 2, op. cit.) has been traced for 2,800 feet. The metasedimentary sequence is intruded by two rock units. A quartz-feldspar monzonite porphyry body, Jurassic in age and with an average width of 1,000 feet, trends northwest for 6,000 feet across the central portion of the claim group. The second intrusion occurs in the western part of the property, trending west for 2,200 feet and widening from 400 feet in the east to 1,000 feet on the bank of Hayes Creek. The highly leached and altered appearance of this quartz-feldspar porphyry is typical of Dawson Range Tertiary intrusives (unit 13, op. cit.). This intrusive body also outcrops west of Hayes Creek and extends 800 feet up Klines Gulch.

From 1 to 3 per cent finely-disseminated pyrite occurs in the Yukon Group metasediments and in the quartz-feldspar monzonite. On the west side of Hayes Creek, the quartz-feldspar porphyry is mineralized with disseminated pyrite, chalcopyrite and molybdenite.

Current Work and Results:

The geochemical soil sampling programs conducted in 1969 and 1970 outlined several large, highly anomalous lead-silver areas associated with weaker copper and molybdenum anomalies. The main anomaly coincides with the

highly-altered intrusive rock but extends another 800 feet to the east. The second anomalous area trends east across the quartz-feldspar monzonite body for 2,200 feet and is from 200 to 500 feet wide. Two other lesser anomalous zones occur in the northeast and southeast corners of the claim group.

APEX CREEK GROUP  
Phelps Dodge Corporation of Canada Limited  
904 - 55 Yonge Street  
Toronto, Ontario.  
and  
1112 West Pender Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 I 5, 12  
115 J 8, 9  
(62°30'N, 138°00'W)

References: Cairnes (1917); Bostock (1936a; 1944).

Claims: APEX 1 to 72, PAT 1 to 24, KOOK 101 to 172

Location and Access:

The claims cover two minor copper showings in an area west of Hayes Creek drained by its tributary, Apex Creek 3 miles northeast of Apex Mountain. No roads are near the property and in 1970 the field crews were flown by helicopter from Minto.

History:

On June 1, 1970, 128 Apex, Kook and Pat claims were optioned from Montana Mines Limited by Phelps Dodge Corporation of Canada Limited and 40 (Apex 1 to 40) additional claims were staked.

Description:

The claim group covers part of the Cretaceous Klotassin Batholith which intrudes the Yukon Group metasediments (unit 1, Bostock, 1936a) and late Jurassic Mount Nansen Group Volcanics (unit 7, op. cit.). The Yukon Group quartzite, biotite gneiss and schist occur on the east edge of the property and as xenoliths up to 5 inches in diameter in the intrusive body. Fragments of the Mount Nansen flows, breccias and tuffs also occur as xenoliths. The main phase of the batholith on the property is a coarse-grained hornblende-quartz monzonite (unit 10, op. cit.) with local limonitic stains. This unit has been intruded by a variety of fine- to medium-grained leucocratic rocks including monzonite, granite, rhyolite, dacite, latite and their porphyritic equivalents, as well as by younger dykes. Joint planes indicate northeasterly and northwesterly near-vertical structural trends in the batholith.

Current Work and Results:

The 1970 program consisted of geological mapping, soil sampling and a magnetometer survey of the claims over a cut grid totalling 120 line miles. Two showings were discovered, consisting of minor bornite and chalcopyrite disseminated in a quartz stringer at the Yukon Group-intrusive contact and chalcopyrite disseminated in a medium-grained granitic intrusion. Three small



geochemical copper-molybdenum anomalies were outlined by the 1970 soil survey, two high in molybdenum with some copper over minor fine-grained intrusions within the monzonite body, and the third high in copper with minor molybdenum associated with inclusions of Mount Nansen Volcanics.

Somme Creek

SOMME PROPERTY  
Dawson Range Joint Venture

Copper, Molybdenum  
115 J 8  
(62°25'N, 138°28'W)

Reference: Cairnes (1917).

Claims: SOMME 1 to 24

Location and Access:

The claims lie at the headwaters of Tom Creek which flows south into Somme Creek 7 miles from its confluence with the Nisling River. The field crew in 1970 was flown by helicopter from the Casino airstrip.

History:

The Somme property was staked in May, 1970, to cover an area of interest discovered during the 1969 reconnaissance program.

Description:

Yukon Group gneiss and quartzite outcrop along the banks of Tom Creek and a smaller stream to the east. Intruding the metasediments are Cretaceous quartz monzonite in the southeast and alaskite in the central and northwest part of the claim group. The Tertiary Carmacks Group siltstone, basalt flows and hornblende-feldspar porphyry cap the older rock units, outcropping on the top of the ridges and stream divides.

Current Work and Results:

In 1970, the claims were grid soil sampled and geologically mapped. Three small areas high in copper and three non-corresponding areas high in molybdenum were detected. Several fragments of alaskite and quartz-feldspar porphyry containing minor molybdenite were also discovered.

Prospector Mountain

FROG GROUP

Prado Explorations Limited

Gui-Por Uranium Mines Limited

Lion Nickel Mines of Canada Limited

Indian Mountain Metal Mines Limited

all of:

Suite 1601 - 8 King Street East

Toronto, Ontario.

Copper, Lead, Zinc

115 I 5

(62°25'N, 137°55'W)

Reference: Bostock (1936a).

Claims: FROG 1 to 96

Location and Access:

The claim group straddles the upper end of the Hayes Creek Valley 3 miles west of Prospector Mountain. The 1970 field exploration crew boarded at the main base camp on Hayes Creek ten miles downstream and were ferried to the property by helicopter.

History:

The Frog claims were staked following the discovery, during the 1969 International Mine Services Limited stream silt sampling program, of a copper-lead-zinc anomaly in the silt of Hayes Creek and its tributaries.

Description:

The oldest rocks underlying the claim group are the Yukon Group quartz-mica schist, hornblende schist, quartzite and hornblende-feldspar gneiss (unit 1, Bostock, 1936a) in the northwest and southwest corners. In the southeast, these are overlain by late Jurassic to early Cretaceous Mount Nansen basalt, breccia and tuff (unit 7, op. cit.). Intruding these units is an early Cretaceous medium-grained syenite to quartz monzonite (unit 9, op. cit.). A dyke of Tertiary quartz and quartz-feldspar porphyry (unit 13, op. cit.) marks the contact of the intrusive with the Yukon Group metasediments to the northwest. The northeast part of the property is underlain by Miocene or older basalt and dacite flows of the Carmacks Volcanics (unit 12, op. cit.) which cap the other rock units.

Current Work and Results:

The 1970 soil sampling outlined limited areas anomalous in copper, lead and zinc over the Mount Nansen basalts in the southeast. The geological mapping and prospecting program revealed that these geochemical anomalies were associated with narrow quartz veins containing disseminated galena and chalcopyrite.

GB GROUP  
Chataway Exploration Company Limited  
401 - 550 Burrard Street  
Vancouver, British Columbia.

115 I 12  
(62°34'N, 137°48'W)

Reference: Bostock (1936a).

Claims: GB 1 to 96

Location and Access:

The 96 GB claims extend from the crest of a ridge separating Hayes Creek from Wolverine Creek, to the north, to the lower slopes of the Hayes Creek valley. The property is drained by six small streams which flow south-west into Hayes Creek 15 to 20 miles upstream from its confluence with the Selwyn River. The field crew in 1970 reached the property by driving to the Revenue Creek airstrip on Big Creek and flying from there to the claims by helicopter.

History:

The claims were staked in December, 1969, for Chataway Exploration Company Limited. Ten claims in the south-central part of the group were kept in good standing in 1970.

Description:

The major rock unit on the property is Tertiary Carmacks andesite (unit 12, Bostock, 1936a) which underlies the eastern half and southwestern and northwestern parts of the property. The volcanics rest unconformably on Yukon Group metasediments (unit 1, op. cit.) which outcrop to the west and are intruded by a north trending tongue of granitic rock (unit 10, op. cit.) contemporaneous with the Cretaceous Coast Range Intrusions.

Current Work and Results:

A geological reconnaissance and soil geochemical survey was conducted in August of 1970. No significant mineralized zones or soil anomalies were recognized.

JOHNNY, CASH GROUP  
Atlas Explorations Limited  
330 Marine Building  
355 Burrard Street  
Vancouver, British Columbia.

Copper, Lead, Zinc  
115 I 5  
(62°25'N, 137°37'W)

Reference: Bostock (1936a).

Claims: CASH 1 to 48, JOHNNY 49 to 88

Location and Access:

The property is on the eastern flank of the Dawson Range, 6 miles southeast of Prospector Mountain on the inside of an arcuate bend in Big Creek. A winter road joins the property to the Freegold tote road on Revenue Creek but access during the summer is by helicopter.

History:

The Cash group of 48 claims was staked in 1969 to cover the source of a heavy metal anomaly discovered in Big Creek and its tributaries by Coranex Limited in 1967. The claims were optioned by Atlas Explorations Limited in 1969 and the Johnny claims were staked to cover limonite-stained outcrop to the northwest.

All of the Cash claims and the southern 16 claims of the Johnny group were allowed to lapse after the 1970 program.

Description:

The oldest rock unit on the property, Yukon Group (unit 1, Bostock, 1936a) quartz-biotite schists and banded quartzite with minor limestone forms a belt trending east in the northwest part of the claim group. The southern part of the property is underlain by a coarse-grained porphyritic hornblende syenite (unit 9, op. cit.). A slight foliation of the hornblende and microcline phenocrysts trends northwest parallel to the long axis of the batholith. Locally, bodies of massive coarse-grained amphibolite and lighter coloured medium-grained quartz monzonite occur which may have resulted from magmatic segregation. Both the major rock units are cut by dykes of Tertiary rhyolite porphyry up to 5 feet wide.

Current Work and Results:

The 1970 geochemical survey of soil and stream sediments outlined two copper-lead-zinc anomalies corresponding to minor gossans along the Big Creek valley to the northwest.



Bow Creek

BO GROUP  
Mead Resources Limited

Copper, Molybdenum  
115 I 3, 6  
(62°15'N, 137°18'W)

Reference: Bostock (1936a)

Claims: BO 1 to 96

Location and Access:

The property is in the valley of Bow Creek, 7 miles upstream from its confluence with Seymour Creek and 8 miles east of Klaza Mountain. Servicing in 1970 was by helicopter.

History:

The BO claims were staked in 1969 and purchased by Mead Resources Limited later that year. After the 1970 geochemical survey, all but the eastern 24 claims were allowed to lapse.

Description:

The bedrock in the area is Jurassic and later granodiorite (unit 10, Bostock, 1936a) which has been intruded by irregular bodies of Tertiary quartz porphyry, monzonite and rhyolite (unit 13, op. cit.).

Current Work and Results:

The geochemical soil sampling survey carried out in 1970 outlined a copper-molybdenum anomaly along the eastern edge of the claims.

Maloney Creek

MALONEY CREEK  
Amax Exploration Incorporated  
601-535 Thurlow Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 H 13  
115 I 4  
(62°01'N, 137°54'W)

Reference: Bostock (1936a).

Claims: POT 1 to 48

Location and Access:

The property is at the head of the south fork of Maloney Creek, 18 miles from the confluence of Maloney Creek and the Nisling River. During 1970 the property was serviced from the Casino airstrip 60 miles to the northwest.

### History:

The claims were staked in September, 1969 over an area of scattered mineralized outcrops and corresponding copper-molybdenum geochemical anomalies.

### Description:

The claim group is underlain by Yukon Group metasediments (units 1 and 2, Bostock, 1936a) and Mesozoic intrusions related to the Coast Range Intrusions (unit 10, op. cit.) which are overlain and intruded by a series of Tertiary flows (unit 12, op. cit.) porphyritic intrusions, dykes and a mineralized quartz diorite plug (unit 13, op. cit.). The Yukon Group consists of strongly folded, northwest-trending quartz-mica schist, impure quartzite and mica-quartz-feldspar gneiss with minor limestone to the northwest and epidote-garnet diopside skarn to the northeast. The Mesozoic intrusions consist of:

- (a) a massive, coarse-grained amphibole-biotite-quartz-plagioclase diorite unit in the northwest part of the property,
- (b) a massive, medium-grained hornblende-biotite porphyry present as small lenses and dykes in the schists and gneisses of the Yukon Group to the south.

The Tertiary igneous rocks are present in several distinct phases, as follows:

- (a) ring-type intrusions and dykes of fine-grained andesite in the Yukon Group and Mesozoic units,
- (b) a plug 2,000 by 5,000 feet, with long axis trending east-northeast, composed of porphyritic quartz diorite having biotite, feldspar and amphibole phenocrysts in a quartz-feldspar matrix occurring near the centre of the claim group,
- (c) a small, easterly trending body of quartz porphyry along the southern contact of the diorite,
- (d) a northeast-trending, irregularly shaped intrusion of brecciated quartz porphyry containing angular, silicified Yukon Group fragments occurring east of the diorite plug,
- (e) a northerly trending belt of quartz-feldspar porphyry on the western part of the claims,
- (f) irregularly shaped rhyolite bodies in the metasediments west of the quartz-feldspar porphyry belt,
- (g) a number of acid to basic dykes intruding the several other units,
- (h) a body of coarse-grained, strongly weathered, quartz-feldspar porphyry to the west of the property.

The dominant structural features on the property are a series of northwest trending linear elements paralleling the regional fault direction. Quartz veining is present as a stockwork pattern in the quartz diorite intrusion (b) and adjacent Yukon Group rocks.

### Current Work and Results:

Following discovery of the showings in 1969 in the course of a regional geochemical reconnaissance, the company, in 1970, conducted a thorough examination consisting of geological mapping, detailed soil geochemical, magnetometer and I.P. surveys as well as pack sack drilling to a depth of 70

feet.

The soil geochemical survey outlined an area of 3,000 by 4,000 feet anomalous in copper and molybdenum over the northern and central part of the quartz diorite plug. The I.P. survey established one anomaly 600 feet by 4,400 feet along the southern contact of the intrusion. The mapping and magnetometer survey demonstrated in the diorite a northerly zone of magnetite in quartz veins, a central zone containing pyrite, chalcopyrite, molybdenite, jarosite, azurite, malachite, magnetite and hematite and flanking this to the south, a zone in which pyrite with minor chalcopyrite and molybdenite is widespread.

### Freegold Mountain

FREE GROUP  
Tanzilla Explorations Limited  
1707 West 68<sup>th</sup> Avenue  
Vancouver, British Columbia.  
and  
P.O. Box 2989  
Whitehorse, Yukon Territory.

Gold, Silver, Antimony  
115 I 6  
(62°17'N, 137°02.5'W)

References: Bostock (1936a, 1936b); Johnston (1937).

Claims: FREE 1 to 12, 17 to 20, 22, 26, 33, 34, 49 to 52, 53 to 56, total of 32 claims

### Location and Access:

The Free claims are on the southeast flank of Freegold Mountain between Stoddart Creek to the north and Seymour Creek to the south in an area that has been actively prospected for gold since 1930. During the 1970 field season, a new access road was constructed west of the original one-mile long Grizzly Gulch trail running from mile 38.5 on the Freegold road to Emmons Hill in the centre of the claim group.

### History:

The first mention of staking of the ground now covered by the Free claims is in Bostock (1936b). Subsequent work is described in Johnston (1937). The Free claims were staked in November, 1969 by Tanzilla Explorations Limited over ground held by Peso Carmacks Gold Mines Limited as the Joe, Teare, Tie and Rex claims. These claims were part of a large group staked in October, 1964 on which trenching was done in 1965. These earlier claims lapsed in October, 1966.

### Description:

The central part of the claim group is underlain by northwest-trending Yukon Group coarse sub-massive granitic gneiss to finer-grained quartz-feldspar-biotite-amphibole schist with local amphibolite bands and lenses (unit 1, Bostock, 1936a and Johnston, 1937). The southwest part is underlain by medium- to very coarse-grained, porphyritic and locally pegmatitic

hornblende syenite (unit 7, Bostock, 1936a and unit 2, Johnston, 1937). The northeast part of the claim group covers medium- to coarse-grained granodiorite (unit 10, Bostock, 1936a and unit 3, Johnston, 1937) containing quartz, K-feldspar, plagioclase and accessory hornblende and biotite. These units are cut by two groups of intrusive rocks in dykes and irregular masses; fine-grained andesite porphyry (unit 4, Johnston, 1937) with prominent plagioclase phenocrysts and fine-grained quartz-feldspar and rhyolite porphyries (unit 5, Johnston, 1937) which grade into non-porphyritic cryptocrystalline felsites.

The American Yukon and Whale showings were described by Johnston (1937). The American Yukon prospect, 1,000 feet north of Emmons Hill, consists of a coarse stibnite, barite, quartz and carbonate vein in banded gneisses striking north-northwesterly and dipping steeply east. The vein was exposed by numerous trenches and a 92-foot shaft with 27- and 50-foot cross-cuts by American Yukon Gold Company Limited in the mid-1930's. Assays as high as \$60 per ton in gold were reported but more consistently ranged from \$26 to \$31 per ton. The Whale showing, three-quarters of a mile southwest is in an east-striking quartz-feldspar porphyry dyke in syenite porphyry. The dyke has been brecciated and cemented by milky-white chalcedonic quartz.

#### Current Work and Results:

The 1970 field program consisted of geological mapping, construction of an access road, which simultaneously provided a bedrock section, and a soil and stream sediment sampling program which outlined three antimony-copper anomalies and one copper-molybdenum anomaly. The trenches on the American and Whale showings were sampled; grab samples from the American showing assayed 0.70 ounces gold and 0.16 ounces silver per ton and 0.10 ounces silver, 0.01 ounces gold per ton and 3.60 per cent antimony while the samples from the Whale showing assayed 0.005 ounces gold and 0.04 ounces silver per ton.

YUKON REVENUE  
Yukon Revenue Mines Limited  
Box 2029, Industrial Road  
Whitehorse, Yukon Territory. and  
Kaiser Resources Limited  
1401 Board of Trade Tower  
1177 West Hastings Street  
Vancouver 1, British Columbia.

Copper  
115 I 6  
(62°21'N, 137°12'W)

References: Bostock (1936a); Green and Godwin (1964, p. 29); Green (1966, pp. 31-33); Findlay (1969, pp. 38-39).

Claims: 122 full and 58 fractional claims

#### Location and Access:

Property is on Revenue Creek on south side of the valley of Big Creek, 35 miles northwest of Carmacks. Access is by the Mt. Freegold road from Carmacks and an 8 mile tote road from Seymour Creek to the property. An airstrip 1,650 feet long, on Big Creek flats near the mouth of Revenue Creek



is used by aircraft up to Beaver size.

#### History:

F. Guder of Carmacks discovered massive chalcopyrite on upper Revenue Creek in 1950. The property was optioned to Conwest in 1951 who drove a short adit and did E.M. and resistivity surveys. Subsequently the property was investigated by Teck Corporation (1954, 1955) with five diamond drill holes near the adit and by Asbestos Corporation who did silt and soil geochemistry on the claim group in 1959. In 1964 and 1965 Canex did a soil survey and put down three more diamond drill holes near the adit. In this drilling, disseminated copper was recognized. G. Heitman and E. Whitehead, in 1966 and 1967 put in some open cuts on the prospect. Later, in 1967, General Enterprises Limited, of Whitehorse, optioned the property and did further road building and bulldozer trenching. Yukon Revenue Mines Limited was formed in early 1968 to continue the exploration, which in 1968 and 1969 involved an I.P. survey and diamond drilling as well as further road building, bulldozer trenching and completion of the airstrip. A 140-foot intersection contained 0.12 per cent copper and 0.03 per cent  $\text{MoS}_2$ . Kaiser Resources took over exploration under a joint exploration agreement in April 1970.

#### Description:

A quartz-monzonite plug, consisting of several recognizable phases, is intrusive into schists and gneisses of the Yukon Group (unit 1, Bostock, 1936a). Hornblende monzonite forms an east-trending belt in the south central part of the property, flanked to the south by Yukon Group rocks and to the north by a biotite monzonite. A low mafic quartz monzonite occupies the central part of the property. An irregular, east-trending belt of altered breccia, probably granitic in composition, is present partly within the quartz monzonite and partly between quartz monzonite and biotite monzonite. The breccia consists of fragments up to a foot or more in size, but mostly 2 to 3 inches across, in an aphanitic breccia matrix. The rock is strongly kaolinized with pseudomorphs of feldspar phenocrysts recognizable as well as abundant quartz eyes. Alteration is widespread in the igneous rocks with propylitic alteration roughly surrounding a zone of argillic and strong argillic or phyllic alteration. The phyllic alteration is common in the breccia phase with the feldspars being almost completely converted to kaolin and some sericite developed. Potassic alteration is not significant.

#### Current Work and Results:

The Kaiser Resources program started with a geochemical orientation survey followed by a geochemical property survey and accompanying geological survey. As the area is overburden-covered, both geochemical and geological samples were obtained from pits to 6 feet deep put in by a ripper-equipped bulldozer. Underlying the modern soil, ash layer (widespread in this part of the Yukon) and a paleo soil are glaciolacustrine deposits, present up to 3,500 feet elevation and locally 60 to 80 feet thick. At the base of this overburden profile is a regolith consisting of decomposed bedrock. Wherever possible, geochemical samples were taken from this regolith. In the drilling program, on a roughly 1,800 foot grid, 25 percussion holes, a total of 7,365 feet and 13 diamond drill holes, a total of 6,074 feet, were completed, testing an area high in copper, as established by the geochemical survey.



**LEGEND**

- Inferred Contacts
- ..... Assumed Contacts
- \* \* \* \* \* Thick Overburden (gr 25)
- ~~~~~ Inferred Faults

**LITHOLOGY**

- Breccia
- Quartz Monzonite
- Quartz Monzonite with Biotite
- Biotite Monzonite
- Hornblende Monzonite
- Aplite
- Leelite Porphyry
- Schist, Gneiss (Yukon group)

**GEOLOGY OF**

Yukon Revenue Property  
 Courtesy of  
 Yukon Revenue Mines Ltd.  
 Mapping by  
 Kaiser Resources Limited

SCALE  
 1" = 1000' 0 1000 2000 3000 ft

Grades of mineralization were not significantly different from those found in the 1968-1969 program. The massive chalcopyrite and pyrite pod of the original discovery is found to be near the centre of the altered breccia. Most of the copper is in the monzonite and breccia phases as disseminated chalcopyrite, with the better grades near the westerly contact of the breccia unit with the monzonite. Malachite and azurite are present in the top 100 feet of bedrock. Rare molybdenite is essentially restricted to quartz veins in the monzonite.

BOW AND RAM GROUPS  
Golden Gate Explorations Limited  
222 - 744 West Hastings Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 I 6  
(62°20'N, 137°15'W)

Reference: Bostock (1936a).

Claims: RAM 1 to 40 and BOW 1 to 40

Location and Access:

The property, located on Bow Creek 2 miles upstream from its junction with Seymour Creek 5 miles west of Freegold Mountain, is accessible by four-wheel drive vehicle over a tote road via Crossing and Seymour creeks from the Carmacks-Freegold road.

History:

The Ram claims were staked in November, 1969, for Golden Gate Explorations Limited. The Bow claims, also staked in November, 1969, were acquired by Golden Gate Explorations Limited from R.L. McKamey in July, 1970. The property covers the earlier Mary and Ray groups explored by the Newkirk Mining Corporation Limited in 1954. The electrical resistivity surveys run over the Mary and Ray groups that year did not delineate any anomalous regions. In November, 1970, four of the southern and six of the western claims of the Ram and Bow groups were allowed to lapse.

Description:

The major rock unit underlying the claims is a belt of porphyritic syenite (unit 9, Bostock, 1936a) of moderately alkaline composition trending northwest across the lower southwest part of the claim group. In places this unit grades into coarse alkaline granite, monzonite, hornblendite and quartz monzonite. Granodiorite and granite (unit 10, op. cit.) intrude to the south and east. Some samples of aplites were collected and are thought to represent dykes.

Current Work and Results:

The 1970 exploration program on the claim group consisted of an airborne magnetic-radiometric-electromagnetic survey by Geo-X Surveys Limited and a reconnaissance geochemical soil sampling program along the claim lines in which the samples were analyzed for zinc, copper and molybdenum. The geophysical survey and air photograph interpretation outlined three prominent



linear features. One lineament parallels Bow Creek in the eastern part of the claim group and extends to the west-southwest. The second linear feature is subparallel and north of the first lineament, extending northeast through claims Ram 35, 36 and 1 to 4. Both these features are interpreted as being faults. The third lineament is less precisely defined and is thought to represent a feature due to either faulting, shearing or a system of northerly trending dykes. The three linears seem to be part of a fan-shaped feature centered on claim Bow 7 and spreading to the north and east.

Three areas of interest were outlined on the basis of geophysical, geochemical and rock-type information; the Bow 1 to 4 claims cover a copper-molybdenum anomaly along the flanks of the geophysical west-southwest trending lineament; the Ram 1 to 4 area has a copper-zinc anomaly along the second lineament; and the Ram 13 to 20 area has a copper-zinc-molybdenum anomaly.

COM GROUP	Copper, Molybdenum
Cominco Limited	115 I 6
Head Office:	(62°20'N, 137°20'W)
630 Dorchester Boulevard West	
Montreal, Quebec.	
Western Region Office:	
Trail, British Columbia.	

Reference: Bostock (1936a).

Claims: The COM 1 to 7 claims form the eastern group and the COM 8 to 101 the main group

Location and Access:

The main group of 94 claims is situated on the northeastern slope of the Dawson Range, southwest of Big Creek and about 6 miles northeast of Klaza Mountain. The smaller group is 3 miles to the east.

History:

The claims were staked by Cominco Limited in September, 1969, to cover two aeromagnetic lows and ground underlain by granitic intrusions, subsequent to the discovery of the Casino porphyry copper deposit in the Dawson Range area. The eastern 20 claims of the main group were allowed to lapse in 1970.

Description:

The few outcrops seen on the main group of claims are biotite- or hornblende-granodiorite with schists of the Yukon Group being found in the southeastern corner. Previously the area was mapped as syenite, monzonite and allied rocks (unit 9, Bostock, 1936a). The second claim group, to the east, is covered by overburden.



Current Work and Results:

During the 1970 season, a geochemical survey was carried out on the claim groups where C horizon soil samples were analyzed for copper, molybdenum, lead and, in the case of the eastern claim group, tungsten. Numerous small copper, molybdenum and lead anomalies occur on the western claim group and a small tungsten anomaly occurs on the eastern group.

NS GROUP

Mitsubishi Metal Mining Company Limited

No. 6, 1 - chome, Ohtemachi, Chiyodaku

Tokyo, Japan.

and

404 - 900 West Hastings Street

Vancouver 1, British Columbia.

115 I 6

(62°20'N, 137°04'W)

Reference: Bostock (1936a).

Claims: NS 1 to 16

Location and Access:

The claims lie on the divide between Stoddart Creek to the south and an unnamed tributary of Big Creek which flows to the west of the property. There is no access road to the property although there is a road to the Granite Mountain property. Servicing during 1970 was done by helicopter from the Casino airstrip.

History:

The NS claims were staked for Mitsubishi Metal Mining Company Limited on May 28, 1969, to cover an area geologically similar to the copper showings of Granite Mountain 4 miles to the southeast.

Description:

The claim group is underlain by biotite-hornblende granodiorite (unit 10, Bostock, 1936a) intruded by small pegmatite veins and a north striking 5-foot-wide aplite dyke in the northwest part of the claim group. The two main directions of jointing in the coarse- to medium-grained granodiorite are northeast and northwest.

Current Work and Results:

The helicopter supported geological and geochemical surveys carried out in May, 1970, failed to reveal any significant mineralization.

TINTA GROUP  
Coin Canyon Mines Limited  
508 - 850 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc  
115 I 7  
(62°17'N, 136°58'W)

References: Bostock (1936a; 1941, p. 26); Skinner (1961, pp. 35-36); Findlay (1969a, p. 34).

Claims: TINTA 1 to 26

Location and Access:

The Tinta claims cover a quartz vein which outcrops 2 miles south-southwest of Granite Mountain at the headwaters of Stoddard and Merrice creeks, to the west and east. Access is by the Mount Freegold road following Crossing Creek to Mile 32 where a tote road, requiring a four-wheel drive vehicle, passes through the Tinta Group at about Mile 6.

History:

The ground was originally staked in 1930 and has been explored intermittently since then. A summary of the work done to 1960 is given in Skinner, 1961. In 1966, the ground was restaked by Canex Aerial Explorations Limited who conducted an E.M. 16 survey and a geochemical soil survey (Findlay, 1969a). In 1968, Silgold Mines Limited purchased the claims Tinta 9 to 18 from the stakers, optioned Tinta claims 1 to 8 from Canex Aerial Explorations Limited and staked Tinta 19 to 26. The trenches were cleaned out and the vein sampled. Coin Canyon Mines Limited acquired the property in 1969, purchasing the Tinta 9 to 26 claims and optioning the 1 to 8 claims from Canex Aerial Explorations Limited, and conducted a geochemical soil survey.

Description:

The area is underlain by granite (unit 10, Bostock, 1936a) with a small, one by one-half mile capping of Carmacks Volcanics (unit 12, op. cit.) occurring in the northeast corner of the claim group. The vein strikes 300° and dips 80° north and has well-defined walls of granite. It has been traced for 3,000 feet with possibilities of about 2,000 foot extensions at each end suggested by electromagnetic and geochemical work. The 1959 drilling by Conwest Exploration Company Limited (Skinner, 1961) along 1,200 feet of the vein and to a depth of 350 feet showed that a persistent galena-sphalerite vein up to 2½ feet wide lies along a shear zone about 100 feet wide. Chalcopyrite and pyrite are disseminated on either side of the vein and in places the mineralized zone is up to 10 feet wide.

Current Work and Results:

The work in 1969 consisted of a geochemical soil survey a follow-up to the previous work done by Canex Aerial Explorations Limited in 1966 (Findlay, 1969). The 1969 survey extended the geochemical anomaly to the southwest and the southeast. The area between the new southeast anomaly and the vein outcropping has not been sampled so the new anomaly may be a separate zone. Another small geochemical anomaly occurs to the northeast.

BRC GROUP  
Mead Resources Limited

Copper  
115 I 2, 7  
(62°14'N, 136°53'W)

Reference: Bostock (1936a).

Claims: BRC 1 to 96

Location and Access:

The property straddles Crossing Creek 2 miles east of its source lake and 6 miles south of Granite Mountain. The all-weather road joining the Yukon Revenue Mines Limited property to Carmacks crosses the claim group.

History:

The 96 BRC claims were staked late in 1969 and acquired by Mead Resources Limited. The claims were allowed to lapse following the 1970 exploration season.

Description:

The claims lie near the northeast side of the granodiorite and allied rocks (unit 10, Bostock, 1936a) of the Dawson Range Batholith in an area without known porphyritic intrusions. Isolated patches of Carmacks Volcanics (tuffaceous basalts) (unit 12, op. cit.) cap the granodiorite to the south-east and northwest.

Current Work and Results:

The 1970 geochemical soil sampling survey outlined a low-intensity copper anomaly in the south-central part of the claims, however the geological survey failed to detect mineralization other than minor pyrite in quartz monzonite float.

Big Creek

KLAZAN GROUP  
Atlas Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia.

Copper, Lead, Zinc,  
Molybdenum  
115 I 5, 6  
(62°23'N, 137°30'W)

Reference: Bostock (1936a).

Claims: KLAZAN 1 to 48, 55 to 136

Location and Access:

The property is on the southeast bank of Big Creek, 10 miles upstream from the mouth of its tributary Seymour Creek. The nearest settlement, Carmacks, is 35 miles by gravel road and 25 miles by tractor road from the Klazan Group. A camp on the property could be supplied during spring and early summer by a bulldozer and trailer using the tractor road but during July and August several long stretches of this road are impassable.

History:

The original 48 Klazan claims were staked in 1965 by Coranex Limited to cover a total heavy metal anomaly in stream sediments of Burgis Creek. In 1969, Atlas Explorations Limited optioned the remaining 21 original claims and staked another 109 Klazan claims.

A geochemical survey was carried out by Coranex Limited in 1965 and 1966 and was followed by trenching of the anomalous areas and geological mapping of the claim group.

Description:

The Klazan claim group covers a northwest trending tongue of Tertiary intrusive (unit 13, Bostock, 1936a) within the northeast edge of a large body of Jurassic to Cretaceous syenite (unit 9, op. cit.). This unit comprises:

- (a) a coarse-grained hornblende syenite to the southwest, northwest and northeast of the group,
- (b) a medium-grained subhedral quartz monzonite along the northern contact of the intrusive tongue, and
- (c) a medium- to fine-grained quartz monzonite to granite porphyry along the southern contact of the intrusive.

The Tertiary intrusive tongue consists of:

- (a) a massive aphanitic rhyolite porphyry which makes up the major part of the tongue,
- (b) a glassy rhyolitic fragmental tuff along the northwestern edge of the rhyolite porphyry,
- (c) a medium-grained quartz latite to feldspar porphyry as dykes in the central and northwestern zone of rhyolite porphyry, and
- (d) massive aphanitic basalt-to-andesite post-mineralization dykes generally less than 5 feet wide and trending northwest.



A quartz stockwork containing molybdenite occurs in the rhyolite porphyry unit near the centre of the claim group.

The feldspar porphyry dykes and the massive rhyolite porphyry contain disseminated pyrite and traces of copper and molybdenite. Sphalerite and galena occur disseminated in the feldspar porphyry and molybdenite in the quartz stockwork veins.

#### Current Work and Results:

In 1970 Atlas Explorations Limited carried out a detailed exploration program consisting of geochemical soil sampling over 37 line miles of grid, geophysical surveying with a Sharpe MF-2 magnetometer, bulldozer trenching and diamond drilling. The two geochemical soil surveys outlined two composite copper, lead, zinc, and molybdenum anomalies, one over an alteration zone along Burgis Creek in the centre of the group and another on the west side of Etches Creek to the southeast. The metal isograms trend southeast with the highest metal concentrations corresponding to the rhyolite and feldspar porphyries contact.

Five holes totalling 2,171 feet were drilled. The highest grade intersections were .17 per cent copper with minor molybdenum over 45 feet in the quartz stockwork and 0.16 per cent copper and 0.068 per cent molybdenum over 10 feet in a feldspar porphyry dyke.

#### Mount Nansen

MOUNT NANSEN MINES LIMITED  
420 - 475 Howe Street  
Vancouver, British Columbia.

Silver, Gold  
115 I 3  
(62°03'N, 137°07'W  
to 137°10'W)

References: Bostock (1936a); Green and Godwin (1963, pp. 23-24; 1964, pp. 26-28); Green (1965, pp. 32-34; 1966, pp. 34-38); Campbell (1965; 1966); Findlay (1967, pp. 30-31; 1969a, pp. 35-38; 1969b, pp. 23-25).

#### Claims:

Mount Nansen Mines Limited and affiliated Brown-McDade Mines Limited hold 299 and 70 claims respectively in the Mount Nansen area.

#### Location and Access:

The claim groups are located in the Dawson Range about 30 miles west of Carmacks and approximately 150 miles northwest of Whitehorse. Access is by a 40-mile gravel road which leaves the Carmacks-Laforma road about 1 mile west of Nordenskiöld River bridge at Carmacks.

#### History:

An outcrop of the Webber vein system was discovered in 1962 by G.F. Dickson on the ridge between Nansen and Victoria creeks. The area was being

explored at that time by the Mount Nansen Exploration Syndicate, a consortium of several mining and exploration companies (Findlay, 1969a, p. 36). In 1963, the members of the syndicate formed Mount Nansen Mines Limited which carried out a detailed surface exploration program leading to the discovery of additional showings,

In 1964, underground exploration of the Webber and Heustis showings was begun. In the same year, control of the Webber, Heustis, Cabin Creek and Brown-McDade was acquired by Peso Silver Mines Limited. From early 1965 to the spring of 1966, underground exploration was continued on the Webber, Heustis and Brown-McDade (which had been explored by underground workings in 1946) properties consisting of 6,192 feet of drifting, crosscutting, and raising and 7,300 feet of drilling. Estimated ore reserves at the end of this period were 173,315 tons averaging 0.484 ounces gold per ton and 19.49 ounces silver per ton for the Webber, Heustis and Cabin Creek properties and 110,000 tons averaging 0.61 ounces gold per ton and 5.4 ounces silver per ton for the Brown-McDade property. Operations were suspended between April, 1966 and June, 1967 while financial arrangements were made to bring a 200 tpd mill into production. Control of the Mount Nansen and Brown-McDade properties was acquired in 1967 by Canadawide Investments Limited (Findlay, 1969a).

#### Description:

Vein structures, consisting of sulphide-bearing quartz lenses, veins and stockworks, cut highly altered quartz-feldspar porphyry (unit 13, Bostock, 1936a) and Yukon Group quartz-biotite schists and gneisses. Ore-bearing structures occur in two forms. Sulphides are associated with discontinuous quartz lenses and stringers in fractured, altered zones up to several feet wide. Arsenopyrite, pyrite, galena and sphalerite are the principal metallic minerals. Various silver-bearing minerals such as freieslebenite, acanthite, native silver, andorite, and argentiferous tetrahedrite have been identified in the ores (Green, 1966, p. 36).

The three principal vein systems are the Heustis, Webber and Brown-McDade in the deposits. The Heustis and Webber vein systems have been extensively developed by underground workings.

#### Current Work and Results:

Production commenced from the Heustis property in September, 1968. The mill produced at the rate of 70 tons per day from September to December, 1968 and at 100 tons per day until the mine closed in April of 1969. Mill heads ran approximately 0.2 ounces gold per ton, 5 ounces silver per ton and 8 per cent lead. The mill was unable to obtain adequate recoveries without the introduction of a cyanide circuit. The mine has been inactive since April, 1969.

MAY GROUP  
Esansee Explorations Limited  
Suite 404 - 510 West Hastings Street  
Vancouver, British Columbia.  
and  
P.O. Box 1784  
Whitehorse, Yukon Territory.

Silver, Gold, Lead,  
Zinc  
115 I 3  
(62°07'N, 137°15'W)

References: Bostock (1936a); Findlay (1969b, p. 25).

Claims: MAY 1 to 22, GALENA FRACTION 1 to 3, SAFETY FACTOR 1 to 45 and SUE 1 to 8 (held under option from J.M. Wheeler of Carmacks).

Location and Access:

The 76 claims on the northeast shoulder of Mount Nansen northwest of the headwater of Nansen Creek and south of the Klaza River are joined to the Mount Nansen Mines Limited property by a 9-mile tote road constructed in March 1969. A 40-mile all-weather road leads from Mt. Nansen to Carmacks.

History:

In the late 1930's high grade silver-lead float was found on the present area of the claim group but the source of the mineralization was not found. In September, 1967, J. Smith of Whitehorse staked the May 1 to 8 claims and took random soil samples which assayed high in lead and silver. He subsequently cut a bulldozer trench with negative results. The claims Sue 1 to 8 were staked in August, 1967, for J.M. Wheeler of Carmacks who cut a trench on the Sue 3 and 4 claims in March, 1968. Esansee Explorations Limited acquired the May 1 to 8 group in February, 1968 and the May 11 to 22 in March. The Galena Fraction and Safety Factor claims, staked in June, 1968, were purchased in October and November, 1968. The Sue 3 claim was optioned from Mr. Wheeler in May, 1968 and the remaining Sue claims were optioned in May, 1969, subsequent to the 1969 field program. Esansee Explorations carried out preliminary geochemical, geophysical and trenching work on the claims in 1968. The result of this work is included in the section "Current Work and Results".

Description:

Bostock (1936a) shows the southwestern corner of the claim group to be underlain by Mount Nansen Group basalt, andesite and dacite flows, breccias and tuffs (unit 7), intruded by a northwest trending tongue of Coast Range Cretaceous granite and granodiorite (unit 10), which underlies most of the property. These two units were intruded by dykes and irregular bodies of Tertiary quartz and granite porphyries, rhyolite and allied rock types (unit 13).

Current Work and Results:

The 1968 field program consisted of a Ronka E.M. 16 survey and a geochemical soil sampling survey over 3.2 miles of picket lines and preliminary trenching. In March, 1969, a 9-mile tote road, suitable for four-wheel drive vehicles, was constructed to the property and the preliminary trenching

program continued with trench mapping and sampling.

The major zone, 2,400 feet long, and a secondary parallel zone of bleached and kaolinitized, sheared granite, within the hornblende-biotite granite intrusive, outlined in the 1968 surveys, was partially exposed by trenching during 1969 and found to contain bands of altered sulphides striking northwest and dipping 45° southwest to vertical. In trench number 1, at the centre of the main zone, three bands of bleached granite contain an easterly trending partly altered stringer of galena 3 inches wide assaying 0.05 ounces gold and 10.6 ounces silver per ton, 3.55 per cent lead and 0.17 per cent zinc over 1.8 feet and a westerly 1-foot-wide limonite, anglesite and cerussite vein with remnants of galena and arsenopyrite assaying 0.09 ounces gold and 2.9 ounces silver per ton, 3.88 per cent lead and 0.34 per cent zinc over 1 foot. Trench number 2 to the northwest uncovered a 17-foot-wide zone of bleached granite enclosing a 6-foot-wide irregular pod of quartz, pyrite and anglesite with cerussite and limonite which assayed 0.44 ounces gold and 14.1 ounces silver per ton; earlier grab samples of pyrite and anglesite having assayed 52.66 and 72.38 ounces silver per ton. Trench number 3, to the southwest, encountered a 40-foot-wide zone of bleached and fractured material with the highest assays running 0.05 ounces gold and 1.9 ounces silver per ton over 2 feet. Trench number 4, cut across a parallel zone to the northeast, uncovered a 17-foot-wide fractured, oxidized zone in a dyke of porphyritic andesite intruded into unaltered biotite granite. A 4-inch-wide vein in the zone of oxidation assayed 0.04 ounces gold and 1.6 ounces silver per ton, 2.28 per cent lead and 0.85 per cent zinc.

#### Merrice Lake

BF GROUP

Mitsubishi Metal Mining Company Limited

No. 6, 1-chome, Ohtemachi, Chiyodaku

Tokyo, Japan.

and

404 - 900 West Hastings Street

Vancouver 1, British Columbia.

115 I 7

(62°19'N, 136°39'W)

Reference: Bostock (1936a).

Claims: BF 1 to 8

Location and Access:

The claims are northeast of Merrice Lake, 11 miles east of Granite Mountain and 6 miles southwest of Yukon Crossing. There is no access road to the property but the Freegold road is 3½ miles south of the property.

History:

The claims were staked on May 29, 1969, by W.E. Fraser and transferred to Mitsubishi Metal Mining Company Limited on July 9, 1969.



Description:

The claim group is underlain by biotite-hornblende granodiorite (unit 10, Bostock, 1936a). The rock is fine- to medium-grained and intruded by feldspar-quartz pegmatite veins. Two weak joint systems strike northwest and northeast.

Current Work and Results:

The helicopter supported soil sampling program carried out on the claim group in May, 1970, failed to indicate any extensive anomalous regions. The samples were analyzed for copper.

Williams Creek

WILLIAMS CREEK PROPERTY  
Dawson Range Joint Venture.

Copper  
115 I 7  
(62°22'N, 136°43'W)

Reference: Bostock (1936a).

Claims: BOY 1 to 78, 83 to 110, 115 to 127 and 137 to 150, DUN FRACTION 1 to 4, MAC FRACTION 1 to 6, MAN FRACTION 1 to 16, WAR 1 to 40 and WILL 1 to 119

Location and Access:

The property is situated 1 mile southwest of the Yukon River, 7 miles west of Yukon Crossing, on the northeast flank of the Dawson Range. The claims cover the drainage basins of Williams Creek and its major tributary to the north. The 1970 field work was dependent on helicopter support but the 1971 program includes the construction of an 8-mile tote road starting from the Freegold road at a point 20 miles from Carmacks.

History:

The 134 Boy claims which form the core of the Dawson Range Joint Venture Williams Creek property are held by option from G. Wing and A. Arsenault on September 21, 1970. The remaining 185 claims and fractions, were subsequently staked by the Dawson Range Joint Venture.

Description:

The claim group is underlain by a granitic batholith (unit 10, Bostock, 1936a) related in composition and age to the Late Cretaceous Klotassin Batholith. The northeastern edge of the group corresponds to the contact of the intrusive granitic rocks with the Mount Nansen Group Volcanics (unit 7, op. cit.) occupying the Yukon River Valley. These basic to intermediate flows, breccias and tuffs occur along the Teslin Lineament which lies between and roughly parallel to the Shakhwak and Tintina Trenches.

Two weakly mineralized outcrops were found by Grant Abbott prospecting on the Boy claims in July, 1970. One zone is a near-vertical, tabular

zone 100 to 180 feet wide and at least 1,600 feet long striking N 35° W in quartz-feldspar-biotite gneiss. The zone, grading up to 1 per cent copper, is open to the north and cut off sharply to the south at a surface lineation. Geochemical sampling suggests a possible similar offset zone about 400 feet to the east. Mineralization is confined to the gneiss, which may be a down-folded or faulted roof pendant of Yukon Group metasediments. The pegmatitic and granitic dykes cutting this rock unit are apparently post mineralization.

The second zone has a length of 410 feet on surface, a maximum width of about 100 feet and an average grade of about 1 per cent copper. The country rock is porphyritic quartz monzonite cut by quartz veins, pegmatitic and granitic dykes. Malachite is the most common mineral.

#### Current Work and Results:

The 1970 program consisted of the prospecting and geochemical sampling of the Owl group, a grid soil survey of 14 square miles leading to the staking of the Will group, bulldozer trenching of the two showings and the drilling of two X-Ray size holes totalling 103 feet in the first zone.

#### ANVIL RANGE AREA

OWL GROUP  
Atlas Explorations Limited  
330 Marine Building  
355 Burrard Street  
Vancouver, British Columbia.

Copper, Lead, Zinc  
105 K 11  
(62°38'N, 133°20'W)

Reference: Roddick (1961).

Claims: OWL 1 to 87

#### Location and Access:

The claims lie 20 miles north of the Anvil Mine on the north flank of a mountain range approximately 4 miles southwest of the Tay River. Access to the property is by helicopter or by float plane to Owl Lake 6 miles east of the claims.

#### History:

The initial Owl claims were staked in October, 1969, to cover an area of anomalous Cu-Pb-Zn soil values found during the course of the Stokes Lake program in August and September of that year. An additional 44 claims were staked in June 1970.

#### Description:

The Owl Group is underlain by a group of Upper Devonian and Lower Mississippian sedimentary rocks, largely cherty, grey-green and black argillites with minor lime-bearing sections; quartzite is less abundant. Outcropping rocks, which cover about 25 per cent of the claim area, strike northwest and dip moderately to steeply southwest.

The 1970 program consisted of geological mapping, soil sampling, and magnetometer, EM and gravity surveys. Most of the mineralization, sphalerite, galena, chalcopyrite and arsenopyrite, occurs in veins with a maximum width of 1 foot. Sample assays have returned the following values: 0.01 ounces gold per ton, 7.68 ounces silver per ton, 0.25 per cent copper, 4.0 per cent lead and 20.2 per cent zinc.

#### Current Work and Results:

A soil geochemical survey indicated coincident copper, lead, and zinc anomalies 5,000 by 1,200 feet in the southern part of the area surveyed. This area was further studied with ground magnetometer, EM and gravity surveys. The gravity anomalies were considered to be the most promising.

In October and November, 1970, the gravity anomalies deemed most promising were diamond drilled. Results were negative.

#### Rose Creek

ANVIL MINE  
Anvil Mining Corporation Limited  
Faro, Yukon Territory  
and  
510 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc  
105 K 6  
(62°21.5'N, 133°22'W)

References: Chisholm (1957, pp. 269-277); Roddick and Green (1961a); Green and Godwin (1964, pp. 31-32); Green (1965, pp. 36-37; 1966, pp. 47-50); Aho (1966, pp. 127-149); Roddick (1967); Findlay (1967, pp. 35-39; 1969a, pp. 43-45; 1969b, pp. 29-30); Templeman-Kluit (1968, pp. 48-52).

#### Location and Access:

The Anvil Mining Corporation Limited operations are in the Anvil Range 130 air miles northeast of Whitehorse. Access from Whitehorse is by way of the Whitehorse-Mayo road to Carmacks, the Campbell Highway and a 17-mile access road from Mile 101 on the Campbell Highway to the mine, a total of 230 miles. Concentrates are trucked to Whitehorse in containers capable of holding 30 tons each, transferred to railroad cars of the White Pass and Yukon Route and delivered to the bulk loading facilities at the port of Skagway, Alaska.

#### History:

The Faro deposit was discovered during the 1965 field season by a combined Dynasty Explorations Limited/Cyprus Mines Corporation exploration program. The 1964 exploration consisted of airborne magnetometer and EM surveys, ground magnetometer, EM and gravity work, geochemical sampling and geological mapping. Rotary drilling, from March to December, 1965, of targets outlined by the 1964 program, discovered massive sulphides on the Faro claim group in June of 1965.

Anvil Mining Corporation Limited was formed late in 1965 as a private company (60 per cent Cyprus Mines Corporation, 40 per cent Dynasty Explorations Limited) to develop the Faro prospect.

During 1966 exploration was concentrated in delineating the Faro No. 1 zone by diamond drilling. Fifty-six holes were completed with a total footage for the zone of 37,349 feet (Findlay, 1967). In late 1966 and early 1967, an adit, having a total length of 2,700 feet, collared at an elevation of 3,920 feet, was driven through the orebody to provide bulk samples for milling and metallurgical testing.

On March 20, 1967, it was announced that the property would be brought into production by late 1969 at an initial rate of 5,500 tons per day to provide 240,000 tons per year of zinc concentrates and 130,000 tons per year of lead concentrates.

During the remainder of 1967, 1968 and early 1969, preproduction work went forward on all phases. In 1967, overburden stripping was started in the pit area as well as further diamond drilling. Excavation and subsurface work on the mill complex was begun. The 17-mile access road to link the mine with the Carmacks-Ross River highway was started. In 1968, stripping for the open pit and mill construction were advanced on schedule. Work on the Faro townsite, near Vangorda Creek, 10 miles south of the mine, involved installation of sewer and water systems and continued work on the access road.

#### Description:

The ore of the Anvil Mine consists of massive pyrite-pyrrhotite-sphalerite-galena assemblages in three zones along a strike length of about 4,000 feet (Findlay, 1969b, p. 30). The main zone (Faro No. 1) is a north-west-striking, shallowly southwest-dipping lens some 2,400 feet long and 1,200 feet wide. The orebody is gently sinuous in longitudinal sections with plunges from 35° to the southeast to nearly horizontal. The ore suboutcrops locally and the main zones are overlain by 10 to 30 feet of glacial debris and other overburden and up to 250 feet of cap rock. The ore lenses occur in laminated phyllitic rocks believed to be Cambrian (unit 3, Templeman-Kluit, 1968). The rocks have been divided into a lower, quartz-rich phyllite assemblage which is host to the ore, and an upper, non-quartzose phyllite containing thick greenstone lenses.

#### Current Work and Results:

Work continued on schedule at mine, mill and townsite. On June 10, 1969, Faro townsite was burned by a forest fire, with 80 per cent destruction. A clean-up operation was started immediately and work continued. Mill tune-up started in August, 1969; the first loads of concentrates were trucked to Whitehorse during the first week of September and the first shipload left Skagway for Japan in the first week of December.

An expansion of the mill was announced (Northern Miner, May 15, 1969) to increase throughput from 5,500 tons per day to 6,600 tons per day, with the additional mill production to be 90,000 tons per year of a bulk lead-zinc concentrate to be shipped to Metallgesellschaft A.G. of Frankfurt, West Germany. The expanded facilities were completed and the first bulk concen-



trates produced in September, 1970.

#### Operating Summary:

During 1970, the first full year of production, Anvil Mine shipped concentrates containing 126,503,000 pounds of lead with 1,498,000 ounces of silver and 142,517,000 pounds of zinc having a sales value of \$40,515,000. Mill heads graded 9 to 10 per cent combined lead and zinc during the first half of 1970 and close to 12 per cent from June to December. Reserves are quoted as 63,473,000 tons containing 3.41 per cent lead, 5.72 per cent zinc and 1.2 ounces silver per ton.

#### Mt. Mye

ZAN, MX, AC  
Kangaroo Exploration Corporation Limited  
1101 - 510 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc  
105 K 6  
(62°25'N, 133°07'W)

Reference: Templeman-Kluit (1968).

Claims: A total of 234 in 6 groups, the ZAN, MX, AC, KD, TIM, JET

#### Location and Access:

The property is immediately north of Mt. Mye in the Anvil Range, 8 miles northeast of Anvil Mine. Access is normally by helicopter from Faro, however, a 12 mile winter road was built to the property.

#### History:

The property was first staked during the activity in the area in 1965, following the discovery of the Faro deposits. An airborne EM and magnetic survey was done on the property in 1966, followed by reconnaissance geochemical sampling and geological mapping in 1968. The property is presently held under option by Kangaroo Exploration Corporation Limited under a joint agreement with Giant Yellowknife Mines Limited and Mercury Exploration Limited.

#### Description:

The claims are underlain by chlorite-quartz phyllites and chloritic tuffs (unit 3, Templeman-Kluit, 1968) and granodiorite of the Anvil Batholith (unit 12, op. cit.). The area is largely covered with thick overburden.

#### Current Work and Results:

A gravity survey, conducted in February and March, 1969, indicated three gravity highs. An I.P. survey, over the same ground, did not indicate significantly anomalous chargeability effects over the gravity anomalies. The gravity anomalies may be due to rises in bedrock topography.

Geochemical samples, taken from the B soil horizon by hand augers, were analysed for copper, lead and zinc, with selected ones also analysed for

mercury.

Three diamond drill holes, totalling 1,948 feet, were put down. One hole was stopped, still in glacial overburden at 250 feet. The other two holes penetrated typical unit 3 (op. cit.) phyllites and schists, in which minor laminae of pyrite and pyrrhotite, parallel with the foliation of the host rocks, were found.

#### SOUTH MACMILLAN RIVER AREA

##### Mt. Selous

##### SOLO CLAIMS

Hudson Bay Exploration and Development Company  
Box 2480  
Whitehorse, Yukon Territory

105 K 16  
(62°58'N, 132°10'W)

Reference: Green and Roddick (1961).

Claims: SOLO 1 to 45

##### Location and Access:

The claims are 8 miles east of Mount Selous in the Clearwater Creek area. Access has been by helicopter from Fairweather or Sheldon lakes.

##### History:

Solo claims 1 to 9 were staked in October, 1968, and 36 additional claims were staked in June, 1969, to cover a silver-lead geochemical anomaly found in 1968. All claims were transferred to Hudson Bay Exploration and Development Company. Soil sampling was carried out in 1968 on Solo claims 1 to 6 outlining a significant silver-lead anomaly. In 1969, geological mapping and further geochemical sampling was done.

##### Description:

The Solo claims are underlain by argillite, quartzite and inter-bedded argillite and conglomerate sediments of Ordovician or Silurian age (see G.S.C. Map 13-1961) and Cretaceous intrusions.

The argillite, with altered phases, is the predominant rock type. In the quartzites are thin beds of argillite up to 15 feet thick. The conglomerate underlies the western section of the area and contains angular to rounded cherty pebbles. The Cretaceous rocks consist of a granodiorite intrusion and rare narrow dykes of quartz porphyry.

The original silver-lead showing was found in a fault 8 inches wide. Narrow fractures in the area contain galena, boulangerite and sphalerite.

### Current Work and Results:

Some grab samples of the original discovery contained 87.98 ounces silver per ton, 0.2 per cent zinc, 75 per cent lead, 0.11 per cent tin and 0.9 per cent antimony.

A total of 197 rock samples were collected, including chip channel samples of the original showing. Three hundred and thirty-eight geochemical samples were taken but gave no anomalous results.

Geological mapping indicated that the mineralization was confined to fault zones in the quartzite.

### UPPER WHITE RIVER AREA

#### Canyon City

SILVER CITY MINES LIMITED  
1322 - 510 West Hastings Street  
Vancouver, British Columbia.

Copper  
115 F 15  
(61°47'N, 140°47.5'W)

References: Findlay (1967, pp. 51-52; 1969a, pp. 68-70; 1969b, pp. 40-41).

Claims: NUK, MARC, GOLDEN HORNE, SLAGGARD and HANNA claim groups, total of 224 claims

### Location and Access:

The White River property of Silver City Mines Limited is on the east side of Upper White River about 18 miles south of Mile 1168 on the Alaska Highway. Heavy equipment is brought to the property by a 20-mile tote road that leaves the road to the Canalask Nickel property about 2 miles south of the Alaska Highway. An airstrip on a gravel bench near the east bank of the White River was maintained. Aircraft up to Beaver size can use a 1 mile lake, locally called Rifle Lake, roughly three-quarters of a mile south of the main showings.

### History:

Chalcocite and native copper, with minor chalcopyrite, have been known in this vicinity since at least the turn of the century. (The White River property covers several of the original Crown Grant claims, first staked in 1905). The 2,600 pound slab of native copper on display at the MacBride Museum in Whitehorse came from early workings on this property. In 1967 a discovery was made during bulldozer trenching near one of the old workings. United Pemetex, a private company formed by Silver City Mines Limited and Central Del Rio Oils Limited, did 2,600 feet of diamond drilling in 1968, in addition to ground magnetometer and I.P. surveys. Since then, Silver City Mines Limited has continued exploration of the property, putting down one diamond drill hole late in 1968, 720 feet north of the 1967 showing.

### Description:

The rocks underlying the claims belong to the Permian (and possibly earlier) Cache Creek Group (units 10 and 11, Muller, 1967) and the Triassic Mush Lake Group (unit 13, op. cit.). The area is structurally complex, with a postulated major, west dipping thrust fault, the Genero-Tchawsahman, crossing Upper White River Canyon and forming a prominent scarp on Slaggard Ridge southeast of the property. At least two other strong faults are probably present; one, passing through Upper White River Canyon about 2 miles west of the Genero Fault, separates Cache Creek strata on the west from Mush Lake volcanic rocks on the east. Numerous smaller faults are present. A prominent fracture zone trending about 20° east of north, offset by east trending small faults, appears to be the focus of mineralization.

The 1967 discovery is a zone 39 feet wide in fractured, dark green, locally amygdaloidal Mush Lake basalt. Steely chalcocite with subordinate native copper and minor bornite occurs as stringers and lenses (Findlay, 1969b). The drill hole put down in late 1968 passed through three mineralized zones in a 56-foot intersection having a calculated true width of 42 feet averaging 2.55 per cent copper (Northern Miner, December 29, 1968).

### Current Work and Results:

In 1969, Silver City completed a 10,000 foot diamond drill program on the I.P. anomalies shown in the 1968 survey and on strike with the discovery showing. As in the case of the 1968 drilling, well mineralized zones were found, but the overall copper distribution is erratic. Reported intersections are: 5 per cent copper over 40 feet at discovery showing; 6.8 per cent over 5.5 feet, 300 feet to the north; 1.9 per cent over 41 feet, 400 feet to the north; 2.1 per cent over 44 feet, 700 feet to the north; and 4.6 per cent over 5 feet, 900 feet to the north.

An I.P. survey was conducted on the property during late May and June, 1969. High chargeability response was found to correlate in some cases with known mineralization in surface showings and diamond drill holes. Where diamond drilling of I.P. anomalies did not intersect rocks significantly mineralized with copper a suggestion is that abundant chlorite, present in amygdules and along shears, may be the cause of the I.P. response.

In 1970, the main mineralized zone was explored by 1,124 feet of underground workings. A 7-foot by 7-foot adit was collared at elevation 2,900 feet, 500 feet west-northwest of the discovery showing. The adit was driven 240 feet in a direction south 80 degrees east, passing through porphyritic andesite and sheared, chloritic volcanic material, probably basalt. The andesite contains some native copper and chalcocite from 70 to 140 feet from the portal. From the 240 foot point, a drift was driven at south 10 degrees east for 160 feet, turned to south 20 degrees west and continued a further 240 feet, bringing it almost underneath the discovery showing. Rock is essentially porphyritic grey to brown andesite with a faulted section of sheared chloritic material at the discovery showing. A zone from 100 to 180 feet and another from 340 to 380 feet is significantly mineralized.

From the adit, a drift was turned off at north 60 degrees east for 60 feet, then north 15 degrees east for 240 feet. Rocks are brown to grey



porphyritic andesite, purplish red andesite or basalt and sheared chloritic basalt. The zone of mineralization intersected in the adit continues for 30 feet in this north drift. A second zone extends from 60 feet to 180 feet.

## KLUANE AREA

### Quill Creek

WELLGREEN  
Hudson-Yukon Mining Company Limited  
c/o Hudson Bay Exploration and Development  
Company Limited  
Box 2480  
Whitehorse, Yukon Territory.

Nickel, Copper  
115 G 5  
(61°28'N, 139°32'W)

References: Campbell (1960); Muller (1958; 1967); Findlay (1967, pp. 52-53; 1969b, p. 43).

### Location and Access:

The property is in the Kluane Range near the head of Nickel Creek, west of Burwash Flats. A 9-mile access road, from Mile 1111 of the Alaska Highway follows the Quill Creek Valley to the original exploration camp.

### History:

Massive sulphides were discovered in a steep gully above Nickel Creek by prospectors W.B. Green and C.A. Aird of the Yukon Mining Company Limited. The property, known as Wellgreen, was optioned by Hudson Bay Exploration and Development Company Limited and the subsidiary firm, Hudson-Yukon Mining Company Limited, was established to direct exploration work. From 1953 to 1956 some 14,000 feet of underground workings and 65,000 feet of surface and underground diamond drilling was completed. Underground workings consisted of an adit driven westerly for 4,000 feet from a collar at an elevation of 4,250 feet and connected by winzes and raises to three other working levels: the 4,470- the 4,050- and the 3,650-foot levels. The work outlined 738,000 tons having a grade of 2.04 per cent nickel, 1.42 per cent copper and minor amounts of cobalt, platinum and palladium. Property was inactive, except for the maintenance of a watchman, from 1956 until 1968, when re-investigation began.

### Description:

In this area, argillites and altered volcanic rocks of probable Lower Permian age (unit 10, Muller, 1967) are intruded by at least two dyke-like bodies of peridotite, possibly the sheared off limbs of a thin, planar intrusion. The peridotite strikes east and dips steeply south, with the deposit being on the north side of the southern body. The ultrabasic is 200-300 feet thick and consists mostly of serpentized peridotite and feldspathic peridotite with a footwall marginal zone of fine- to medium-grained, altered, anorthositic gabbro or diorite (Findlay, 1967, p. 53). Massive to heavily disseminated lenses of pyrrhotite containing chalcopyrite, pentlandite and violarite occur within this gabbro zone and, to a lesser extent,

within a bordering hornfels zone. The ore shoots, typically thin and irregular, roughly parallel the ultramafic-gabbro contact (op. cit. p. 53).

#### Current Work and Results:

Hudson Bay Exploration and Development Company began re-evaluation of the property with a ground geophysical program in 1968 which outlined several anomalous areas (Findlay, 1969b, p. 43).

During the period June to November, 1969, the company completed 2,500 feet of diamond drilling in an attempt to discover zones of disseminated sulphides away from the massive sulphides explored earlier.

In March, 1970, the company announced plans to place the property in production on the basis of the 738,000 tons quoted earlier. Hudson Bay Mining and Smelting Company Limited, 93 per cent owners of Hudson-Yukon, completed a five year sales agreement with Sumitomo Metal Mining Company Limited of Japan for 30,000 to 60,000 tons of concentrate annually.

On the property, de-icing of the adit driven 15 years earlier was started in February. Slashing of the 6-foot by 7-foot exploratory adit to 6 feet by 8 feet for mining, sinking of an internal shaft between levels and driving of lateral openings in preparation for shrinkage stoping mining were carried on for the remainder of the year.

On surface a powerhouse and mine dry were built at the portal. Work on the mill and townsite beside the Alaska Highway at Mile 1111 was started; the mill foundations being finished by the end of the year.

#### Burwash Creek

CORK CLAIMS  
Imperial Oil Enterprises Limited  
111 St. Claire Avenue West  
Toronto, Ontario.

Copper, Molybdenum  
115 G 6  
(61°23'N, 139°25'W)

Claims: CORK 1 to 60

#### Location and Access:

The claims are situated at the head of Johnson Creek, a southeast flowing tributary of Tetamagouche Creek. The settlement of Burwash Landing on Kluane Lake is 15 miles east. Access to the property is by a 6-mile road which leaves the Alaska Highway at Mile 1104 for the placer workings of Burwash Mining Limited. A tote road has been built a further 5 miles to the exploration camp.

#### History:

The Cork claims were staked on the basis of copper showings found during a reconnaissance geochemical survey in 1966 by Geophoto Services Limited. During 1967, geological mapping, magnetic, I.P. and soil geochemistry surveys were completed.

### Description:

The area is 6 miles southwest of the Shakwak Trench and is underlain by west to northwest trending units of the Cache Creek and Mush Lake Groups, which are intruded by basic to acidic rocks Cretaceous to Tertiary in age. The Permian Cache Creek sandstones, limestones and shales (unit 11, Muller, 1967) outcrop on the southern part of the property. Triassic Mush Lake andesites, tuffs and agglomerates (unit 13, op. cit.) to the north overlie the sediments with probable unconformity. Diorite of the Kluane Range intrusions (unit 18) intrudes the sediments on the southern boundary of the property. A porphyritic latite or feldspar porphyry (mapped as unit 19, Muller, op. cit.) intrudes the Cache Creek and Mush Lake rocks at roughly the contact between these. An aureole in the older rocks surrounding the intrusion has been converted to skarn and hornfels. The feldspar porphyry has numerous quartz filled fractures and is weakly but recognizably altered with kaolinized feldspars, secondary biotite and sericite in the matrix. A bright yellow, in part reddish, gossan covers much of the area underlain by porphyry.

Pyrite, chalcopyrite and molybdenite with minor magnetite and specularite are present. Pyrite, disseminated and along fractures, locally makes up 2 per cent of the porphyry and in the contact aureole is still more abundant. Chalcopyrite and molybdenite are present in fractures in the porphyry with some chalcopyrite disseminated both in the porphyry and in the contact rocks. Malachite is common in the porphyry-Mush Lake contact zone.

### Current Work and Results:

During 1969, a detailed geological map was prepared of the area underlain by the porphyry intrusion and surroundings. Rock samples, including 10 foot line samples, were taken from exposures. In 1970, 2,640 feet of diamond drilling was completed in eight holes.

Assays indicated sporadic highs of greater than 4 per cent copper in the skarn and greater than 0.5 per cent in the porphyry. On the best mineralized part of the property, samples representing 600 feet of line gave greater than 0.2 per cent copper. Molybdenite assays were mostly 0.010 to 0.005 per cent. Where the copper assays were 0.2, the molybdenite range was 0.010 to 0.13 per cent.

Although subeconomic, the surface assays, combined with the porphyry copper characteristics of the host rocks, namely alteration, leaching, fracturing and quartz veining, suggested the possibility of ore grade material at depth. This would be the first porphyry copper-molybdenum deposit recognized southwest of the Shakwak Trench in the Yukon Territory. The diamond drill holes, however, intersected rocks whose tenor was still low, being similar to the material at surface. There is no evidence of secondary enrichment, intense alteration or brecciation.

ALICE LAKE MINES LIMITED  
327 - 736 Granville Street  
Vancouver, British Columbia.

Copper  
115 G 6  
(61°21'N, 139°20'W)

Reference: Muller (1967)

Claims:

Alice Lake Mines Limited holds 92 claims in two groups known as the MARY and TEDDY.

Location and Access:

The claims lie along the crest of the Kluane Range at the head of Tetamagouche Creek. They are 6 miles southwest of Burwash Flats (Mile 1104 Alaska Highway). During the 1970 season, the property was serviced by helicopter from Burwash Landing, 15 miles east of the property.

History:

Claims were staked over an old showing (Muller, 1967).

Description:

Two showings, about one-half mile apart, occur near the ridge crest in dark green, amygdaloidal basalt of the Triassic Mush Lake Group (unit 13, Muller, 1967). One showing consists of a bornite vein 16 inches thick in a north striking, moderately west dipping shear zone. The second showing is in a trench where strongly fractured basalt contains bornite. Both zones are intensely stained with malachite.

Current Work and Results:

During 1969 and 1970, electromagnetic surveys outlined anomalies near the shear zone.



RUBY RANGE AREA

Tincup Lake

CAM CLAIMS

Arrow Inter-America Corporation  
535 Thurlow Street  
Vancouver, British Columbia.

Asbestos  
115 G 11  
(61°40'N, 139°20'W)

Claims: CAM 1 to 48

Location and Access:

The claim group consists of 48 contiguous claims lying 1 mile east of Kluane River and 8 miles north of Mile 1118 on the Alaska Highway. The property was serviced during the 1969 season by helicopters operating from Burwash Landing, 25 miles to the southeast. The Casino Silver Mines Limited winter road passes a few miles to the east of the property.

History:

The property was first staked in 1953, examined by Northwestern Explorations Limited in 1954, and the claims then allowed to lapse. Claims Cam 1-24 were staked by the present owners, T.L. Sadlier-Brown and E.O. Chisholm, in August, 1968, and optioned to Arrow Inter-America who staked 24 additional claims (Cam 25-48).

Description:

The claims lie in a small east-trending valley at 3,000 feet elevation, forming a local divide between Tincup Lake and Kluane River. The valley bottom is typically swampy; the lower hillsides are timbered with spruce and balsam to 4,000 feet.

The rocks consist of Yukon Group metasediments, here being slates, quartzites, schists and re-crystallized limestones (unit 3, Muller, 1967), containing ultrabasic intrusions. The rocks strike roughly west and dip 40° to 50° south. Present within the metasediments is a concordant ultrabasic body some 15,000 feet long and 4,000 to 5,000 feet thick. This sill is layered, having a base of peridotite followed by pyroxenite and then gabbroic rocks. In some parts there may be repetitions of this sequence.

Current Work and Results:

The 1969 program consisted of preparation of 40 line miles of grid, geological mapping, geochemical and geophysical surveys (magnetometer and E.M.) and test pitting.

Rare showings of short fibre chrysotile asbestos were found along the northern contact in the basal peridotite zone, within 300 feet of the underlying metasediments. Fibre is typically 1/16 to 1/8 inch long and forms up to 3 per cent of the rock. In the best showing, a moderately to highly serpentinized zone 50 feet wide contains 7 to 8 per cent fibre, averaging 1/8 inch but to a maximum of 1/2 inch.

Raft Creek

TALBOT AND ALASKITE PROJECTS  
Phelps Dodge Corporation of Canada Limited  
904 - 55 Yonge Street  
Toronto 215, Ontario.

Copper, Molybdenum  
115 G 8  
(61°28.5'N, 138°10'W)

Reference: Muller (1967).

Claims: A 1 to 101, ADD 1 to 28 and 30 fractions, B 1 to 42, ED 15 to 30, 45 to 60 and 75 to 85, and K 1 to 16, a total of 231 claims

Location and Access:

The property covers the headwaters of Rockslide Creek, Alaskite Creek and an unnamed creek flowing south into the northern Gladstone Lakes in the central-northeast part of the Ruby Range, 29 miles east-northeast of Burwash Landing. Access is possible during the summer by tracked vehicle from the Aishihik airstrip along a 35-mile route in the valleys of a north tributary of Albert Creek and of Talbot Creek.

History:

The property was staked for the Phelps Dodge Corporation of Canada Limited, during the summer and fall of 1970, to cover known and previously trenched copper, molybdenum and tungsten showings. The Bear 1 to 4 claims, two of which (presently owned by Topazios Mining and Exploration Company Limited, remain in good standing at the centre of the ED group), were staked in September, 1963, and explored through the years by means of 29 pits and trenches.

Description:

The area is underlain by biotite-hornblende granodiorite, quartz monzonite and quartz diorite of the Ruby Range Batholith (unit 5, Muller, 1967) and the Mesozoic and (?) Early Tertiary Nisling Range alaskite which includes granite and quartz monzonite (unit 7, op. cit.). The batholith outcrops on the property as an east-southeast trending tongue in the northwestern and central parts. The texture of both units ranges from fine- to coarse-grained and porphyritic.

Diabasic to dioritic dykes, trending north-northeast, intrude most of the rock types and are relatively unweathered. Acid dykes related to the granitic phases, trend northerly to northwesterly and dip steeply.

Three areas of intense jointing, faulting and shearing with disseminated molybdenite, chalcopyrite, pyrrhotite and pyrite in the rocks and along the fracture planes, occur on the property. The largest area, to the west of Alaskite Creek near its headwaters, is marked by a number of gossans and numerous zones of molybdenite rosettes. The second area, along the west flank of Talbot Creek, occurs within or near the edge of an alaskite porphyry body. The third mineralized area, south of Rockslide Creek, occurs in coarse crystalline alaskite.

Current Work and Results:

The 1970 geological mapping was carried out concurrently with a geochemical soil, silt and rock sampling program. The geochemical survey outlined three copper-molybdenum anomalies corresponding to the three gossan zones.

NISLING RANGE AREA

Onion Creek

MAX CLAIMS  
Atlas Explorations Limited  
330 Marine Building  
355 Burrard Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 G 15, 16  
(61°51'N, 138°34'W)

Claims: MAX - 217 claims

Location and Access:

The claims are between the headwaters of Onion Creek and Rhyolite Creek about 50 miles northeast of Burwash Landing. Access is by helicopter although Casino road, passable in winter, passes 5 miles west of the claim group.

History:

The 217 Max claims were staked in June and July, 1970, to cover a copper-molybdenum prospect discovered in the course of regional exploration in the Nisling Range. Succeeding work consisted of cutting grid lines spaced at 400 feet and 800 feet over selected areas, geologic mapping at 1 inch to 400 feet, soil sampling, prospecting, hand trenching, magnetometer and barometer topographical surveying.

Description:

The Max claims are underlain by Yukon Group rocks intruded by a series of Mesozoic and Tertiary granitic rocks. The main unit underlying the Max group is composed of micaceous quartzite, amphibolite gneiss and minor marble. The eastern portion of the claims is covered by dark green to purple andesitic porphyritic flows and pyroclastic breccias thought to be of early Mesozoic age.

Three separate phases of intrusion have been recognized: (1) the Nisling Range Granodiorite represented by two small, hornblende-biotite, quartz monzonite plugs, (2) a coarse-grained, rarely porphyritic alaskite with associated felsite dykes in the southern and central parts of the claim group, and (3) small basic dykes with compositions ranging from fine-grained diorite to lamprophyre.

A series of northwest trending faults, two of which occur on the claim group, dominate the structural features and are disrupted by smaller

cross faults.

Molybdenum occurs in quartz veins and as minor disseminations in the western quartz monzonite plug and as rosettes in quartz veins cutting quartzite; whereas, the copper is associated with pyrite and pyrrhotite in rusty breccia pockets in quartzite, in white-to-grey felsite dykes and their immediate host rocks and along with the molybdenite in the quartz monzonite stock.

Assays showed 0.009 per cent molybdenum and 0.033 per cent copper in the quartz monzonite plug and 0.31 per cent copper and 0.003 per cent molybdenum in grab samples of the rusty and brecciated Yukon Group rocks.

#### Current Work and Results:

Soil sampling was done over two grids. The soil survey over grid No. 1 in the central part of the claim group revealed the presence of four copper anomalies. The strongest anomaly is more than 6,000 feet long on the east side of the property and can be correlated with a quartz monzonite plug and adjoining felsite in the south, and a rusty silicified zone in the vicinity of a felsite contact to the north. A 3,000-foot-long molybdenum anomaly coincides with the northern part of the copper anomaly. The second largest anomaly trends northeasterly with copper highs to the east not coinciding with molybdenum highs. The centre of this anomaly covers a quartz monzonite plug. The smallest anomaly is over an area of rusty quartzite and adjacent to a northwesterly trending fault. A lead-zinc anomaly trends northeasterly in the southeastern part of the grid. This anomaly is adjacent to and partly overlapped by a molybdenum anomaly.

Most of the stream sediments on grid No. 2 are anomalous in copper. Copper and lead-zinc highs mostly coincide with anomalies covering large areas over the southeast half of the grid.

The magnetometer survey was run on the eastern part of grid No. 1 and outlined the quartzite-quartz porphyry contact and anomalous readings, usually high and low patterns, coincide with the copper-molybdenum anomalies.

The geochemical anomalies over grid No. 1 appear to be caused by minor, disseminated sulphides and veinlets in intrusive and Yukon Group rocks and in quartz veins.



DEZADEASH AREA

Tatshenshini River

JACK POT COPPER MINES LIMITED  
Whitehorse, Yukon Territory.

Copper  
115 A 3  
(60°03'N, 137°07'W)

References: Kindle (1953); Findlay (1969b, pp. 43-44).

Claims: LILL, TATS, RUM, STE, HILL groups, total of 206 claims

Location and Access:

The property is 6 miles southwest of Dalton Post (abandoned) and 3 miles north of the Yukon-British Columbia border. Access is from Mile 105 on the Haines cut-off, from which point a 4 mile road leads west to Dalton Post. During low water, four-wheel drive vehicles and heavy equipment can ford the Tatshenshini River and reach the property by a 6 mile tote road from Dalton Post.

History:

The property was first staked in 1965 and has been investigated since 1967 by Jack Pot Copper Mines Limited. Following electromagnetic, magnetic and geochemical surveys in 1967, bulldozer trenching in 1968 exposed copper minerals, mainly chalcopyrite. Continued trenching traced the zone for a strike distance of about 90 feet.

Description:

The showing is in a rusty shear containing quartz-breccia filling with disseminated and massive chalcopyrite having abundant malachite and azurite staining. The shear zone trends slightly west of north, dips steeply east and lies along the contact of fine- to medium-grained granitic intrusive rock (unit 7A, Kindle, 1953) to the east and fine-grained schistose andesite or basalt to the west (Mush Lake Group, unit 3, Kindle, 1953) (Findlay, 1969b).

Current Work and Results:

During 1969, the company put in bulldozer cuts at the showing and also trenched a geophysical anomaly some 2 miles to the north. In October and November, 1970, the company completed 1,700 feet of diamond drilling in five holes to test the width and continuity of the mineralized zone along strike. Results so far indicate strike length of at least 600 feet with widths ranging between 2 and 7 feet.

Haines Junction

GOLDEN GATE EXPLORATIONS LIMITED  
222 - 744 West Hastings Street  
Vancouver, British Columbia.

Asbestos  
115 A 11, 14  
(60°44'N, 137°17'W)

References: Kindle (1953, pp. 57-58); Skinner (1961, pp. 28-30;  
1962, pp. 27-29); Green and Godwin (1963, pp. 24-25; 1964, pp.  
29-30); Findlay (1967, pp. 55-56).

Claims: Golden Gate Explorations Limited holds 16 claims, the most promising part of the original 64 claim REX property.

Location and Access:

The property is on the west side of Kathleen River, 7 miles east of Haines Junction. A 7-mile tote road leads from the Haines cut-off road near Mile 152 to the property.

History:

Asbestos showings, first discovered in 1953, were explored by several companies between that date and 1963. Diamond drilling by Cominco in 1963 was hampered by overburden which was greater than 100 feet deep in places (Findlay, 1967). Golden Gate Explorations trenched and drilled the property in 1966. Six of eight holes started reached bedrock, covering an area of about 600 by 300 feet, and indicated 2 per cent asbestos fibre over horizontal widths of 210 feet (Northern Miner, November 17, 1966). An airborne magnetometer survey, made in late 1966, revealed a series of new anomalies.

Description:

The asbestos-bearing rock is a fine- to medium-grained partly serpentized dunite (unit 5A, Kindle, 1953). Veinlets containing cross fibre asbestos up to  $\frac{1}{2}$  inch long occur with random orientation and in the best exposure constitute approximately 2 per cent of the rock (Findlay, 1967).

Current Work and Results:

When visited by this writer in 1969, the property was being explored by a truck-mounted overburden drill. Holes were put down through glacial till and lake sediments to bedrock. Coring equipment was then used to take a sample of the first 10 feet of bedrock; 1,200 feet in 22 holes being completed. Grades and fibre lengths were similar to those found in the earlier work.

WHITEHORSE AREA

Whitehorse Copper Belt

NEW IMPERIAL MINES LIMITED  
1130 - 1055 West Hastings Street  
Vancouver, British Columbia.

Copper, Silver, Gold  
(60°33'N to 60°45'N  
134°53'W to 135°10'W)

References: Green (1965, pp. 33-39; 1966, pp. 50-51); Findlay (1967, pp. 41-43; 1969, pp. 49-54); Hilker (1967).

Claims: 766, some 170 of which were added during 1970

Location and Access:

The properties of New Imperial Mines Limited are spread over a length of 16 miles, immediately west of the City of Whitehorse. Movement of material between the open-pits and the concentrator is by company mine haulage roads. One mile of road joins the concentrator complex with the Alaska Highway about 5 miles south of Whitehorse.

History:

The first reports of copper in the Whitehorse area were from miners on their way to the Klondike gold fields in 1897. During 1898 and 1899, most of the presently known showings were staked in a strip, some 4 miles wide and 17 miles long, trending slightly west of north, which came to be known as the Whitehorse Copper Belt. Small shipments of hand picked ore were made between 1900 and 1909. Development work and production went on from 1915 to 1920, until forced to stop by the low price of copper. Drilling was done during the period 1926 to 1929. Noranda did geophysical work, trenching and diamond drilling from 1946 to 1948 on the old workings known as Little Chief, Middle Chief, Big Chief, Valerie and Pueblo.

Imperial Mines and Metals Limited was formed in 1954 and acquired claims in the copper Belt in 1955. This company did magnetometer and diamond drilling on the Arctic Chief and Big Chief prospects. Renamed New Imperial Mines Limited in 1957, the company did diamond drilling in 1963 and by 1964 had outlined 2.1 million tons of material containing 1.2 per cent copper together with worthwhile amounts of gold and silver. In 1965, feasibility studies recommended a 2,000 tons per day milling operation, based on 5½ million tons of material amenable to open pit mining and containing 1.2 per cent copper. Following an agreement for senior financing and a ten year sales agreement with Sumitomo Metal Mining Company of Japan, construction started on the mill, near the Little Chief deposit, in the central part of the Copper Belt. Mining began on this deposit in the summer of 1966 and milling began in May 1967. In 1967, the company milled 368,000 tons of ore, producing concentrates with gross sales value of 3.9 million dollars. 1968 production was 732,000 tons of ore with the concentrates being worth 7.0 million dollars. Deep drilling demonstrated the presence of some 2.8 million tons of ore grading 2 per cent copper beneath the Little Chief pit.

## Description:

The deposits of the Whitehorse Copper Belt consist of irregular lenses and patches occurring in skarn zones developed in Lewes River (Triassic) limestone adjacent to diorite to granodiorite Coast Range intrusions. In the Little Chief and Arctic Chief area, mined during 1967 and 1968, the skarn consists of diopside, epidote, tremolite-actinolite, garnet, serpentine, magnetite and/or hematite and, rarely, asbestos (Findlay, 1969b, p. 34). The ore minerals are chalcopyrite, bornite, chalcocite and vallerite, with minor native copper. The skarn of the War Eagle is a diopside-garnet assemblage with lesser amounts of epidote and tremolite-actinolite. Bornite and chalcopyrite are the main ore minerals.

## Current Work and Results:

During the first six months of 1969, millfeed came from the Arctic Chief and Little Chief open pits, adjacent to the mill. Development work on the War Eagle property was completed in June, 1969. Following changes to the grinding circuit necessitated by the more abrasive ore of the War Eagle ore-body, 8 miles north of the mill, this deposit was mined for 18 months, being completed in January, 1971.

In exploration during 1969, surface diamond drilling was done on the Gem deposit, south of the Little Chief, proving 822,000 tons grading 1 per cent copper. Geophysical surveys (EM 16) were completed in the same area. During 1970, the Black Cub deposit was drilled and proved to have 287,000 tons grading 1.45 per cent copper. At the northern end of the Copper Belt, around the old Pueblo workings (the largest producer in 1917), 18 line miles of I.P. survey were completed as well as a magnetometer survey.

An underground development program, designed to make the 2.8 million tons of Little Chief ore available for mining, was started in November, 1969. A 10-foot by 15-foot decline was collared just west of the mill and driven southerly at a 15 per cent slope. The planned length is stated to be 5,000 feet, the end to be 850 feet lower than the portal. Diamond drilling from stations in this decline have demonstrated further mineralized sections in the Middle Chief zone. Estimates of this ore (Northern Miner, April 8, 1971) are 340,000 tons grading 2.48 per cent copper.

The following operating summary is from data provided by the company:

	1969	1970
Dry tons milled	805,519	852,461
Daily average (tons)	2,207	2,335
Mill heads (copper)	1.09 %	1.04 %
Metal production		
Copper	15,169,466 lb.	16,084,731 lb.
Total sales (including gold and silver)	\$11.7 million	\$ 9.9 million

Ore reserves were quoted at the end of 1969 as 9.1 million tons having a grade of 1.65 per cent copper. Following changes in classification, removing some of the above from the ore category because of lower copper prices, gives an ore reserve at the end of 1970 as 3.5 million tons having a grade of 2.31 per cent



copper.

LEWES RIVER MINES LIMITED  
Suite 410 - 355 Burrard Street  
Vancouver, British Columbia.

Copper  
105 D 10  
(about 60°35'N to 60°47.5'N,  
134°50'W to 135°07'W)

References: Kindle (1964); Wheeler (1961); Findlay (1969b, pp. 34-35).

Claims: 478 in one block, 44 in a second block.

Location and Access:

The main block of claims forms a 17-mile by 2-mile strip along the eastern side of the Whitehorse Copper Belt and the second block, immediately east of the south end of the first, covers Cantlie Lake and surroundings. The property extends from about 2 miles east of the Carcross Road - Alaska Highway junction on the southeast to a point on the Yukon River 4 miles north of the city of Whitehorse. There is ready access by way of roads on the east side of the Yukon River, as well as the Alaska Highway, which the claims cross.

History:

The claims were staked during the 1960's on the overburden covered terrain east of the Yukon River. The assumption was that the eastern contact of the Whitehorse Stock (unit 8, Wheeler, 1961) would extend through this area and prove a host to contact-metasomatic copper deposits similar to those of New Imperial Mines which are at the western contact of this stock with Lewes River limestone (unit 3c, op. cit.). The present company was incorporated in 1968 to explore the property. In September, 1969, Lewes River Mines entered into a joint venture agreement with Canex Aerial Exploration Limited whereby Canex may earn a 70 per cent interest by bringing the property into production by December 31, 1973 (Whitehorse Star, May 19, 1970).

During 1968, a low level aeromagnetic survey was made of the property, outlining targets for ground work. Initial I.P., ground magnetic and geochemical surveys were done on two of the target areas.

Description:

The area of the main claim group is overburden-covered, mostly with fluvio-glacial material; the 44 claim group to the east has limestone in contact with a small granitic stock. Although skarn is recognized at the contact, sulphide minerals have not been found.

Current Work and Results:

In 1969, Canex Aerial put down four diamond drill holes having a total footage of 1,600 feet, and continued ground geophysics (I.P. and magnetometer surveys) on the targets selected earlier. The 1970 program consisted of further diamond drilling, a total of 5,000 feet in 11 holes.

The geophysical interpretation indicates that the contact between the Whitehorse stock and Lewes River sediments is present in suboutcrop on the main claim group and under the city of Whitehorse. Two areas of embayment by Lewes River sediments are indicated. The diamond drilling results thus far have substantiated the geophysical interpretation. The most favourable intersection from the 1969 drilling assayed 1.05 per cent copper over 130 feet with a possible true width of 100 feet (Whitehorse Star, May 19, 1970). Diopside-garnet skarn containing chalcopyrite, bornite and chalcocite is in contact with hornblende quartz monzonite.

### Haeckel Hill

#### MIKE CLAIMS

Trans Western Investments Limited  
c/o Peter E. Walcott and Associates Limited  
605 Rutland Crescent  
Coquitlam, British Columbia.

Copper  
105 D 14  
(60°50'N, 135°10'W)

Claims: MIKE 1 to 14 and 17 to 29

#### Location and Access:

The property is 5 miles northwest of the city of Whitehorse, between Haeckel Hill and the Porter Creek subdivision on the Alaska Highway. Roads provide convenient access.

#### History:

Between July 3 and 11, 1970, Peter E. Walcott and Associates Limited carried out limited I.P. and magnetometer surveys over the Mike claims.

#### Description:

The property lies on the western edge of the Whitehorse Copper Belt. Biotite granite outcrops on the northern extremity of the group, while sedimentary rocks and tuffaceous equivalents outcrop in the centre of the property. No skarn zones were found on the property.

#### Current Work and Results:

Using a "pole-dipole array" method with an electrode separation of 400 feet a strong I.P. anomaly was noted trending northwest across the most southerly of the claims and is open at both ends.

The magnetic survey failed to outline any anomalous areas on the southern claim but did serve to outline an airborne anomaly shown on the government maps.

The southernmost claim is the only promising part of the group and soil sampling and more I.P. and magnetic surveying are recommended.

Marsh Lake

PINE AND OAK CLAIMS  
International Mine Services  
Box 1052  
Whitehorse, Yukon Territory.

Copper  
105 D 9  
(60°30'N, 134°15'W)

Reference: Wheeler (1961).

Claims: OAK 1 to 120 and 33 PINE claims

Location and Access:

The claims are situated on the northeast side and southeast end of Marsh Lake in the Whitehorse mining district and are on the Alaska Highway.

History:

Between July, 1967, and March 12, 1968, an airborne EM and magnetometer survey as well as some ground magnetometer and EM surveying was done on these claims. The area was selected because of the favourable geology, similar to that around orebodies in the Whitehorse Copper Belt. An I.P. survey was subsequently carried out in the spring of 1969 over claims Oak 92, 94, 131, 133 on which an electromagnetic conductor had been recognized.

Description:

The area is underlain by volcanic rocks of uncertain age some of which are metamorphosed. These rocks are, in turn, underlain by Jurassic sediments consisting of graywacke, arkose, argillites and related rocks. These rocks, including the volcanics, are intruded by Cretaceous Coast Range intrusions.

Current Work and Results:

Aeromagnetic work in 1967 revealed a strong magnetic anomaly following the McClintock River as well as an EM anomaly to the northeast of the magnetic anomaly. A number of EM anomalies were also found close to the contact zone between the volcanics and Jurassic sediments. Another magnetic anomaly trending northwest approximately in the center of the survey area was observed which does not follow the general trend of geology (G.S.C. Map 193A, Wheeler, 1961). Also an extensive magnetic trend was observed following the Alaska Highway. EM anomalies were found to the southwest of Caribou Lake and graphite was observed in the area. The I.P. survey carried out subsequently in 1969 showed a very high background above which no anomalies were discernible in the area of the Caribou Lake electromagnetic anomaly.

Geochemical soil sampling on the Caribou Lake grid lines indicated low background values in copper, lead and zinc. A ground electromagnetic survey was conducted on this grid in 1967, and a magnetometer survey was completed during this period. The EM anomaly extends over a distance of 2,400 feet and is classified as a poor to moderate conductor having graphite and minor pyrite as a conductive source.

CARCROSS AREA

Montana Mountain

VENUS MINES LIMITED  
440 - 890 West Pender Street  
Vancouver, British Columbia.

Gold, Silver, Lead,  
Zinc, Cadmium  
105 D 2  
(60°01'N, 134°38.2'W)

References: Cairnes (1908, pp. 16-17; 1909, p. 31; 1917, pp. 39-41; in Bostock, 1957, pp. 254-255; 282; 447-459); McLean (1914, pp. 194-200); Cockfield and Bell (1926, p. 40); Wheeler (1961, pp. 129-130); Findlay (1967, pp. 48-50; 1969a, pp. 62-64; 1969b, pp. 37-38).

Claims: 40 claims owned and optioned, of which eight are Crown Grants

Location and Access:

The property is on the west side of Windy Arm, Tagish Lake, 4 miles southwest of the abandoned settlement of Conrad and 10 miles southeast of the community of Carcross. A 17-mile access road along the lake joins the property to Carcross.

History:

From 1914 to 1918, this area was explored for gold and silver deposits, several of which were worked briefly (Findlay, 1969b, p. 37). A 100-ton mill was built on the lakeshore to treat ore from the properties. Small ore shipments were made with 6,000 tons reportedly coming from the Venus workings (Cairnes, 1917).

Description:

The rocks of the area belong to the Cretaceous Hutshi Group (unit 7, Wheeler, 1961), consisting of a variety of volcanic types. Andesite and andesite breccia appear to be the most common in the mine area. Northerly trending quartz veins (around north 20 degrees east) dip about 30 degrees west. The Venus vein, the most persistent found thus far, has been traced for more than a mile. It contains coarsely crystalline quartz - in part showing comb structure - and carbonate with bands and lenses of pyrite, arsenopyrite, galena, sphalerite and minor chalcopyrite. Ruby silver is present in significant amounts in some parts of the vein. Ore grades quoted range from 0.185 ounces gold per ton and 22.0 ounces silver per ton over 5.4 feet (this in a 15-foot ore shoot) to 0.329 ounces gold per ton, 10.36 ounces silver per ton, 2.12 per cent lead and 1.92 per cent zinc over 5.4 feet (105-foot ore shoot) (Northern Miner, October 19 and November 24, 1967).

Current Work and Results:

Modern exploration and development began with Venus Mines Limited in 1966. During both 1966 and 1967 some four months of underground work with a 10-man crew was done on the property. The company continued the work for 10 months during 1968. To the end of 1968, Venus completed 7,100 feet of drift-



ing and crosscutting, 650 feet of raising and 2,900 feet of diamond drilling. During 1966 and 1967, work was on the 2,700-foot level (elevation 2,734 feet). In 1968, the 2,600-foot level adit was driven from a collar at an elevation of 2,622 feet and 1,200 feet northeast of the 2,700-foot level portal. A raise was driven along the vein from the 2,600-foot to 2,700-foot level in the northern part of the workings and a 2,650-foot sublevel established from this raise. The 17-mile access road was built from Carcross.

In late 1968, the consulting engineering firm recommended that the property be put into production at 300 tons per day. Following successful financing during the spring of 1969, the company started construction of mill foundations on the lakeshore, 5 miles north of the mine, with production scheduled for August, 1970.

During 1969, further underground development prepared the mine for production with the building of ore passes and preparation of stoping areas. On the 2,600-foot level, 564 feet of drifting, crosscutting and raising were completed, with 504 feet being done on the 2,700-foot level. The 2,800-foot level, established above the 2,600-foot adit from a raise on the 2,700-foot level, was driven 123 feet. From the drifts, 2,452 feet of diamond drilling was done.

During 1970, the 2,800 2N drift was extended 1,200 feet and the 2,800 2S driven 235 feet, to a length of 333 feet. A 2,850-foot sublevel drift was driven south 40 feet during August. From the series of levels and sublevels, raises some 50 feet apart were driven on the vein to provide mining places. During the year 157 feet of diamond drilling was done.

Development ore from the workings was stockpiled below the 2,600-foot portal. When the mill started in September, about 30,000 tons were available to supplement mine-run ore in providing mill feed. By the end of the year, 23,491 tons were treated, with two concentrates being produced. The zinc concentrate contains one ounce of gold and 30 ounces of silver per ton and 2.5 per cent cadmium. The lead concentrate carried 7 ounces of gold, 270 ounces of silver per ton and 0.05 per cent cadmium. An initially planned circuit, designed to recover a pyrite-gold concentrate, has not been put in to use.

The following is an operating summary for the period September to December, 1970, from information provided by the company:

Dry tons milled	23,491
Daily average	246
Production	
Gold (ounces)	1,791
Silver (ounces)	76,970
Lead (pounds)	345,860
Zinc (pounds)	236,905
Mill head grade	
Gold	0.08
Silver	3.29
Lead	7.36
Zinc	5.04

---

Reserves quoted in the feasibility study were: 75,470 tons proven containing 0.39 oz/ton gold, 11.55 oz/ton silver, 2.58 per cent lead, 1.67 per cent zinc and 0.093 per cent cadmium.

ARCTIC GOLD AND SILVER MINES LIMITED(N.P.L.)  
1130 - 355 Burrard Street  
Vancouver, British Columbia.

Silver, Gold  
105 D 2  
(60°05'N, 134°42'W)

References: Cairnes (1906, pp. 24-25; 1908, p. 14; 1917, pp. 28-36; in Bostock, 1957, pp. 209-217; 245-275; 426-459); Cockfield and Bell (1926, p. 39; 1944, p. 12); Wheeler (1961, p. 127); Green (1966, pp. 56-60); Findlay (1967, pp. 46-47; 1969a, pp. 58-60; 1969b, pp. 35-37).

#### Claims:

The Arctic property consists of two Crown Grant claims ('Pride of the Yukon' and 'Caribou') and an additional 82 claims on Sugarloaf Hill about 1 mile north of Montana Mountain summit.

#### History:

The property was initially investigated in 1905 when underground workings were begun along a quartz vein structure. Three thousand tons of handpicked ore, reportedly grading 1.08 ounces gold and 27.7 ounces silver per ton, were shipped from the property before 1925.

#### Description:

A system of northeast striking quartz veins, which cut altered granodiorite, contain pyrite, arsenopyrite, sphalerite, galena and rare chalcopyrite as irregular lenses and shoots within the veins. The vein structures are commonly bordered by selvages of intensely altered granodiorite.

Two principal vein systems are fairly persistent but gentle flexures in dip and translation along two fault systems complicate underground development and exploration.

Recent investigation of the property was undertaken in 1964 by the present company. In June, 1967, the announcement was made that the property would be brought into production early in the summer of 1968. During 1967, mine and mill buildings were completed, an 8-mile all-weather access road was constructed, and underground (approximately 30,000 feet in 200 holes) and surface (3,700 feet in 19 holes) drilling programs were completed. Stope development commenced in December, 1967. Reserves at the end of 1967, as outlined by the drilling program, were 254,920 tons averaging 0.68 ounces gold per ton and 19.70 ounces silver per ton (from company annual report, 1967).

Initial production was to be at a rate of 200 tpd and eventually increased to 300 tpd. Gold and silver concentrates were to be shipped by rail to Skagway and then to Bolidens Mining Plant in Sweden.

Production from the property began in mid-May, 1968. Tune-up problems and ore-grades below feasibility production affected the operation during the first six months and production was inconsistent. The mill closed for a three month period, December, 1968 to March, 1969 while the company refinanced and modified the mill. Mill heads in 1968 averaged 0.28 ounces of gold and 10.5 ounces of silver per ton of ore at an average mill rate of 150 tons per day. Production resumed in March and continued to October, 1969, on a 100 ton per day basis. The mine ceased operation at the end of October. Prior to shutdown, approximate grades at the mill heads were 0.23 ounces of gold and 7.5 ounces of silver per ton. Production figures for 1969 to date of closure are 4,627 ounces of gold and 119,887 ounces of silver recovered from 25,132 tons of ore milled.

Mt. Conrad

LULU CLAIMS  
Premier Mines Limited  
c/o R.G. Hilker  
P.O. Box 566  
Whitehorse, Yukon Territory.

Silver, Lead, Zinc  
105 D 2  
(60°00'N, 134°33'W)

Reference: Wheeler (1961).

Claims: LULU 1 to 16

Location and Access:

The claims are on a north-facing slope of the Rams Horn in the vicinity of Windy Arm, Tagish Lake above timberline. Helicopter from Whitehorse is the common mode of access.

History:

The Lulu claims 1 to 4 were staked October 7, 1967, and Lulu claims 5-16 were staked September 26, 1968. The claims were all subsequently transferred to Premier Mines Limited. A property examination was carried out on September 12, 1968.

Description:

The rocks consist of metamorphosed volcanics of the Taku Group of Pennsylvanian and Permian age (?). Magnetite, pyrrhotite and chalcopyrite were found in the vein zones of andesitic rock of the volcanics with significant amounts of copper, silver, nickel and gold. Patches of skarn were found associated with the vein zones and sulphide bearing float was found in the talus.

Current Work and Results:

In the fall of 1969, a ground magnetometer survey was done by chain and compass control using an east-west baseline. No highly anomalous areas were found although numerous weak anomalies were observed.

A geochemical soil survey was also performed on the grid and a volcanic ash horizon was found; sampling procedure was modified to include material from the horizon when it could be found. A total of 54 soil samples were taken.

Some sample assays were 20.2 ounces silver per ton, 4.6 per cent lead and 0.63 per cent nickel. The average lead assay for the 54 samples was 15 ppm.

BIG SALMON RANGE AREA

Livingstone Creek

BEAVER-MINK GROUP  
The Colorado Corporation  
c/o Donaldson Securities  
535 Thurlow Street  
Vancouver, British Columbia.

Copper  
105 E 1  
(61°21'N, 124°11'W)

Reference: Bostock and Lees (1938).

Claims: BEAVER 1 to 8 and MINK 1 to 56

Location and Access:

The claim groups cover the southern section of the northeastern slope of Boswell Mountain and extend east across Fish Creek and south to the southern shore of the northernmost of the Loon Lakes. The lake is sufficiently long to permit the use of float-equipped aircraft.

History:

The area was first staked prior to 1900 (Bostock and Lees, 1938, p. 28) and has been often restaked since then. Two adits, one roughly 270 feet long and the other 50 feet, were driven in the early 1900's. Since then, little work had been done on the ground until it was staked as the Beaver 1 to 8 claims in June, 1969. The Mink claims were staked by employees of P.H. Sevensma Consultants Limited during a preliminary examination of the property



in December, 1969.

Description:

Precambrian or Later Yukon Group schist and quartzite (unit 1, Bostock and Lees, 1938) underlie the eastern three-quarters of the claim group with some Lewes River Group limestone (unit 5, op. cit.) in the south-central part of the property and Hutshi Group volcanics (unit 9, op. cit.) in the southwestern part. A number of diabasic to dioritic sills and dykes intrude the metamorphosed Yukon Group.

The rocks are cut by two major faults, one trending 20° in the south part of the property and a second one in the north part.

Chalcopyrite occurs as disseminations and as fine veinlets, in a 100- to 150-foot wide zone of cherty quartzite and disseminations in the adjoining schists. The chalcopyrite zone trends 350° and dips 75° west.

Scattered chalcopyrite and arsenopyrite-pyrite-quartz veins outcrop in various areas on the property. The arsenopyrite-rich areas are usually poor in chalcopyrite.

The old adits are reported to have cut an 80- to 90-foot wide zone containing disseminated chalcopyrite which graded 2 to 2.5 per cent copper. Grab samples taken before 1970 assayed:

Copper (%)	Gold (oz/ton)
6.7	0.04
1.41	0.06
2.9	N.A.
4.7	0.12

Current Work and Results:

The 1970 program consisted of geological mapping and soil and rock sampling along 16 miles of cut grid lines. The soil sampling indicated substantial copper anomalies in two zones trending northwest.

Resampling of the main zone indicated values of:

Width feet	Copper (%)	Gold (oz/ton)	Silver (oz/ton)
35	0.47	tr	0.2
2	1.14	tr	0.4
100	0.58	0.03	0.3

Sawtooth Range

FOX AND STAR CLAIMS  
Boswell River Mines Limited  
1177 West Hastings Street  
Vancouver, British Columbia.

Silver, Lead, Molybdenum  
105 C 13, 105 F 4  
(61°00'N, 133°45'W)

References: Mulligan (1963); Findlay (1969, p. 8)

Claims: 408 claims in three groups, the FOX (376), STAR (24) and SNOWSHOE (8)

Location and Access:

The property is 50 miles east-northeast of Whitehorse, on Slate Mountain, at the headwaters of Slate and Red Mountain creeks, two tributaries of Boswell River. Heavy equipment was brought in during the winter of 1968-69 over a winter tote road from the south end of Quiet Lake, 25 miles east of the property. Fuel and other supplies were brought to Baker Lake, 6 miles east of the property, by Bristol aircraft, and ferried in from there by helicopter.

History:

Occurrences of silver-bearing galena have been known in this area for many years. During the season of 1966, an exposure of galena was discovered in a small creek bed and pyrite was recognized as being widespread in a porphyritic intrusion. The first group of Fox claims was staked in the winter of 1966-67 and surface exploration was continued in 1967. In November, 1967, an airborne survey (combined magnetic, radiometric and electromagnetic) was flown over the area. During the summer of 1968, a soil geochemical survey revealed essentially coincident silver, lead and copper and molybdenum anomalies in the central to southeast part of the property.

Description:

Slates, quartzites, chloritic schist and dolomite of the Big Salmon Complex (Mulligan, 1963) are intruded by feldspar-quartz porphyry of probable Tertiary age. The intrusion is at least 3,500 feet long and 2,500 feet thick, with the long sides roughly concordant with the northwest strike and moderate to steep northeast dip of the enclosing metasedimentary rocks. The intrusion interfingers irregularly with the hornfels equivalent of the enclosing rocks on the southeast. Much of the area of outcrop of the intrusion has a prominent yellow and red-brown gossan. Surface rocks contain numerous vugs, as well as significant pyrite, in some places forming up to 5 per cent of the rock. The pyrite occurs as blebs, crystals and veinlets in both the porphyry and the metasediments. Molybdenite is also present in the surface rocks, forming thin sheets. Rocks strongly silicified with quartz veins bordered by molybdenite are common.

Current Work and Results:

During the 1969 season, 7,500 feet of diamond drilling was completed in 14 holes. When property was visited by this writer, drilling was in progress with sections of moderate grade in molybdenum being recognized.

Additional geological mapping of the property was done, including the use of a scintillometer to help delineate the intrusive-metasedimentary contact in areas of shallow overburden.

The property was inactive during 1970.

MAC GROUP  
McGregor Telephone and Power Construction  
Company Limited  
9925 - 62nd Avenue  
Edmonton 81, Alberta.

Copper, Molybdenum  
105 C 13  
(60°55'N, 133°45'W)

Reference: Mulligan (1963).

Claims: MAC 1 to 64

Location and Access:

The property is in the Sawtooth Range on the eastern side of the Teslin River Valley, 6 miles northeast of Swift Lake, and 45 miles east-north-east of Whitehorse. Access to the area is by the tote road joining the Fox claim group of Boswell River Mines to the Canol road.

History:

Of the 64 Mac claims staked in May, 1969, for A. McGregor, 41 were allowed to lapse in 1970.

Description:

The claim group is underlain mainly by quartz-hornblende and quartz-feldspar-hornblende gneiss and amphibolite and diorite (unit A, Mulligan, 1963). The gneiss is derived from the Mississippian or earlier Big Salmon Complex, schist, gneiss, quartzite, greenstone and limestone (unit 1, op. cit.), which outcrops in the northeastern corner of the property.

Current Work and Results:

A reconnaissance geochemical soil sampling survey carried out during the summer of 1969 outlined a number of extensive north-trending copper anomalies with coincident molybdenum highs in the southeastern part of the claim group.

NW GROUP  
Northwest Explorers (1967) Limited  
c/o Hudson's Bay Oil and Gas Company Limited  
320 Seventh Avenue Southwest  
Calgary 2, Alberta.

Molybdenum, Copper  
105 C 13  
(60°55'N, 133°35'W)

References: Lees (1936); Mulligan (1963).

Claims: NW 1 to 6, 11 to 16, 21 to 26, 53 to 58, 75 to 80, 103 to 120, 143 to 160, 183, 184, 239 to 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, RH 1 to 8 and XY 1 to 16, a total of 142 claims.

Location and Access:

The claims are within the Sawtooth Range, a part of the Big Salmon Range, north of Swift Lake, south of Slate Creek and southwest of Red Mountain Creek, 44 miles east-northeast of Whitehorse. A winter tractor road leaves the Canol road at Mile 28 and cuts through the NW claims to reach the Boswell River Mines camp. A branch of the road also goes to Swift Lake.

History:

The 118 NW claims were staked in May, 1969 and transferred to Northwest Explorers (1967) Limited in April, 1970. The RH and XY claims were staked for the company in September, 1969, and May, 1970.

Description:

Exposed in the Sawtooth Range are metasediments of the Mississippian and earlier Big Salmon Complex (unit 1, Mulligan, 1963). The sediments, chiefly micaceous quartzite and quartz-mica schist and gneiss with bands of limestone, marble, meta-volcanics and garnet-epidote skarn, have undergone medium to strong metamorphism resulting in a hornblende gneiss which locally approaches diorite in composition and texture (unit A, op. cit.). Overlying these rocks to the southwest of the claims are Triassic and Jurassic sediments; argillite, graywacke and conglomerate (unit 9, op. cit.). Coast and Cassiar granitic intrusions outcrop to the northeast of the property.

Current Work and Results:

During the summer of 1969, a reconnaissance silt sampling program was done on the property. Three grids were established for a more detailed soil sampling program. The silt geochemistry outlined a copper-lead anomaly trending east from the western corner to the central southeastern part of the property. Molybdenum highs occur with high lead and moderate copper values in the centre of this main anomaly. The soil survey outlined a number of southeast trending anomalies on the grids in the central and eastern parts of the property.

In 1970, soil sampling was completed over the whole of the claim group in order to assess the stream silt anomalies and extend the 1969 soil survey anomalies, which were open to the southeast. A number of copper and molybdenum anomalies were detected, the latter trending along the bedrock strike over black phyllites with heavily disseminated pyrite in the northern



and southeastern part of the claim group. The copper anomalies are less well defined but trend generally southeast; some copper highs coincide with the molybdenum anomalies.

LINDSAY GROUP

Trans Yukon Exploration Limited  
P.O. Box 1979  
Whitehorse, Yukon Territory.

105 C 14  
(60°56'N, 133°03'W)

Claims: 204 claims in 22 groups staked from June 1966 to March 1968

Location and Access:

The property is south of Quiet Lake in a valley at 2,500 to 3,000 feet elevation. A 3 mile road leads from Mile 45 on the Canol Road westward to the property.

History:

The area was staked to cover an isolated magnetic high on Government Airborne Magnetic Survey Maps 7007 G and 1345 G (1961). Several patches of transported gossans are present where recent gravels have been cemented by iron and manganese solutions from local springs. Newmont Mining Corporation of Canada did a geochemical survey in 1966 (lead and zinc) but did not continue with their option. In 1967, Trans Yukon Exploration Limited contracted combined airborne EM, magnetometer and radiometric surveys of the area. The magnetometer survey indicated the suboutcrop outline of an ultrabasic intrusion. In May, 1968 two grids were established with northeast baselines and geochemical, magnetic and electromagnetic surveys were conducted over two large zones indicated by the airborne work to be anomalous. Geological mapping was also done over these grids.

Description:

The area of the claims is mostly covered with overburden ranging up to an estimated 70 feet in the middle of the valley. Bulldozer trenches to greater than 40 feet failed to reach bedrock.

The rocks of the area consist of northwest trending, northeast dipping schists, quartzites and gneisses assigned by Mulligan (1963) to the Big Salmon Complex (Mississippian and earlier). The southeast end of a granodiorite body, intrusive into Big Salmon rocks, outcrops on the northwest corner of the property. A body of serpentized dunite and peridotite outcrops in Quiet Creek and is believed to underlie the central part of the claim group. Magnetite as fine disseminations and narrow bands, as well as minor pyrite, is present in the ultrabasic rocks.

Current Work and Results:

In March, 1969, Trans Yukon Exploration Limited did a magnetometer survey over three isolated airborne EM anomalies on the west side of the intrusion. The work helped to delineate the intrusion - schist contact and indicated the presence of faults. Soil samples from bulldozer trenches were

analysed for copper and nickel and an overall northwest trend for both elements was established.

During April and May, 1969, Eagle Geophysics completed a contract magnetometer and I.P. survey on part of the property along bulldozed lines running northeast. Magnetometer readings were taken every 100 feet, the purpose being to delineate the intrusion-schist contact. The I.P. survey indicated three anomalies, two of which lie within the Big Salmon Complex near the intrusive contact. These correlate well in trend (northwest) and position with the copper-nickel anomalies established by the geochemical survey.

The property was inactive during 1970.

### Fox Creek

CAB CLAIMS  
Atlas Explorations Limited  
330 Marine Building  
355 Burrard Street  
Vancouver 1, British Columbia.

Tungsten  
105 F 14  
(61°52'N, 133°25'W)

Claims: CAB 1 to 106

### Location and Access:

The claims are 36 miles southwest of Ross River. Access is by air only and float planes can be landed at a small lake  $1\frac{1}{2}$  miles north of the property.

### History:

The 106 claims were staked over a period between June 15, 1968, and September 23, 1968. Geological mapping, channel sampling and geochemical soil sampling for tungsten were carried out during the 1968 summer season, with detailed plane tabling and some geochemical silt sampling being carried out in the 1969 season.

### Description:

The area consists of metasediments, at least 1,000 feet thick, intruded and uplifted to the west by a Cretaceous quartz monzonite batholith which metamorphosed the sediments to a garnet diopside skarn. The showings consist of a roof-pendant (No. 1 showing) of massive skarn approximately 20 feet thick on the southeast edge of the batholith and two parallel skarn zones (No. 2 showing) separated by about 10-30 feet of interbedded quartz-biotite schist and local sills of quartz monzonite intrusive. One other skarn zone outcrops on strike in a deep gorge cut by Varden Creek about  $3/4$  mile to the northwest.

### Current Work and Results:

In 1968, three lines of continuous sampling in addition to grab samples were taken on No. 1 showing while five lines were sampled on No. 2 showing. In September of that year, the ground was resampled and the zones were extended using a panel type sampling method in 3-foot by 3-foot areas across the strike of the mineralized zones.

Analysis of grab samples and channel samples taken in 1969 showed large discrepancies in the assay results so that no conclusion as to grade could be drawn. A soil survey revealed the presence of two anomalies which suggested that the second of the two showings previously mentioned extends northwest to the mineralized outcrop about 3/4 mile away. Stream silt sampling of Varden Creek reflects the soil anomalies. A total of 5,000 feet of drilling is proposed for the property.

### WATSON LAKE MINING DISTRICT

#### FRANCES LAKE AREA

MATT BERRY MINES LIMITED  
1102-347 Bay Street  
Toronto, Ontario.

Silver, Lead, Zinc  
105 H 6  
(61°28.5'N, 129°25'W)

References: Findlay (1967, p. 63; 1969b, pp. 47-48).

Claims: MATT, BERRY, JIM and KAY Groups. Total 264.

### Location and Access:

The property is on the east side of the East Arm of Frances Lake, 95 miles north of Watson Lake. The Watson Lake-Ross River road passes along the west side of the west arm of the lake. Heavy freight and equipment can be taken by barge down the west arm and up East Arm to the property, a total of 30 miles. Light servicing is done by float- or ski-equipped aircraft.

### History:

The area of the main showings was first staked in the late 1930's, and further prospected by Cominco in 1943. Datalaska Mines Limited did further surface exploration in 1960. Matt Berry Mines Limited acquired the property in 1965, did further trenching and stripping that year and 2,120 feet of diamond drilling in 14 holes during 1966.

### Description:

The rocks underlying the property in the vicinity of the sulphide showing are Paleozoic argillites and phyllites. Although deformed by small folds, there is a consistent general attitude of northwest strike and moderate (roughly 40 degrees) dip. An axial plane schistosity cuts the bedding, producing a cleavage-bedding intersection which plunges gently to the north-northwest. A series of left lateral shear faults, about 300 feet apart, trend east-northeast to east, dip steeply north to vertical and have 50 to 100 feet

of displacement on each.

Massive to heavily disseminated galena and sphalerite with minor pyrite and chalcopyrite occur in quartz-siderite vein structures (Findlay, 1969b, p. 48), parallel to the bedding.

#### Current Work and Results:

Starting in late 1968 and continuing through the winter, a diamond drilling program extended the known strike length of the mineralized zone to 1,400 feet. Fifteen holes were put down, having total footage of 5,400 feet and bringing total on the prospect to 7,540 feet (Northern Miner, 12 February, 1970). In late 1970, a further 1,400 feet (4 holes) of drilling was completed.

The mineralized layers are typically 1 to 4 feet thick and occur at different positions within a stratigraphic interval of some 60 feet. From one to three intersections are typically found in each drill hole, the lowest consistently being in the first 10 feet above a lithologic change from grey phyllite to a black graphitic phyllite.

Results from one of the deeper holes in the 1969 program gave three intersections in 67 feet of core as follows: 3 feet grading 2.10 ounces silver, 7.45 per cent lead and 6.19 per cent zinc; 2 feet grading 2.50 ounces silver, 5.14 per cent lead and 1.08 per cent zinc; and 7 feet grading 3.70 ounces silver, 6.36 per cent lead and 11.48 per cent zinc (Northern Miner, 29 May, 1969).

In September, 1970, a working option agreement was announced whereby a joint venture of Canadian Nickel Company Limited and Metallgesellschaft Canada Limited may earn a 60 per cent interest in the property for exploration commitments (Northern Miner, 24 September, 1970).

During the 1970 season, the joint venture partners conducted a series of geophysical and geochemical orientation surveys over the known mineralized zone. These consisted of I.P., magnetometer and electromagnetic studies and silt and soil geochemical work.



PELLEY PLATEAU AREA

Sheldon Lake

JOY GROUP  
Spartan Explorations Limited (N.P.L.)  
303 - 1035 West Pender Street  
Vancouver, British Columbia.

Copper, Tungsten  
105 J 9  
(62°45'N; 130°15'W)

Reference: Roddick and Green (1961).

Claims: JOY 1 to 60

Location and Access:

The Joy Group is situated about 5 miles south of the western end of Itsi Lake and approximately 85 miles northeast of Ross River. The Canol Road passes within 15 miles of the property. Best access is by helicopter.

History:

The claims were staked in September, 1968, in an area where copper-tungsten mineralized float was discovered by a reconnaissance prospecting program. The claims were reinvestigated during the summer of 1968 with a geological mapping program and geochemical and geophysical surveys.

Description:

The major rock unit in the area is a series of Lower Cambrian and Devonian sediments which strike easterly and have a fairly constant regional dip of about 50° to the north. The Paleozoic assemblage of massive chert, dolomite, dolomitic limestone and shale is intruded by small quartz porphyry stocks and dykes of probable Cretaceous age. The sediments appear to form an east-west trending syncline with the quartz porphyry being intruded along the synclinal axis.

Interest in the area was sparked by the discovery of a boulder containing significant amounts of scheelite, chalcopyrite, sphalerite and pyrrhotite. Tungsten grade in the boulder was visually estimated at about 3 per cent WO<sub>3</sub>.

Current Work and Results:

Soil samples were taken at 500 foot intervals on lines 1,000 feet apart. A total of 190 samples were obtained from approximately 190,000 feet of cut line. Several areas, anomalous in zinc and molybdenum, appear to be spatially associated with areas mapped as being underlain by quartz porphyry.

A ground magnetometer survey failed to delineate any anomalous areas.

MacMILLAN PASS AREA

TOM PROPERTY  
Hudson Bay Exploration and Development  
Company Limited  
Flin Flon, Manitoba.  
and  
Box 2480  
Whitehorse, Yukon Territory.

Lead, Zinc  
105 0 8  
(63°10'N, 130°09'W)

References: Green (1965, pp. 47-48); Findlay (1969a, pp. 85-87;  
1969b, pp. 50-51) Sangster (1969, in G.S.C. Paper 71-1A, pp. 91-92).

Claims: 144 claims

Location and Access:

The Tom property is 6 miles southwest of the Northwest Territory-Yukon boundary, at an elevation of about 5,000 feet in a cirque valley south-east of the South MacMillan River. The property is joined to the North Canol Road by a 2-mile company access road at a point 8 road-miles from MacMillan Pass and 130 miles from Ross River. Total road distance to Whitehorse is 390 miles by way of the Robert Campbell Highway and the Whitehorse-Mayo road. An airstrip beside the Canol Road, used in the past, was lengthened from 1,200 to 2,000 feet during 1969 to provide convenient access by wheeled aircraft.

History:

The original showing was discovered by Hudson Bay Mining and Smelting Company prospectors in 1951 on the northeast side of the cirque at 5,500 feet. Between then and 1953, a total of 17,834 feet were diamond drilled in 36 holes. Tonnage and grade figures were estimated as 10.5 million tons containing 5 per cent zinc with some lead (Green, 1965, p. 47). The property was idle from 1953 to 1966, when the company did a geochemical survey. Additional geochemical sampling and 5,500 feet of diamond drilling in 10 holes was carried out in 1967. Work in 1968 consisted of 5,100 feet of diamond drilling, concentrated on the eastern of the two recognized mineralized zones (Findlay, 1969a, p. 51).

Description:

The rocks of the area are finely banded cherty argillites and siliceous fragmental rocks, either chert pebble conglomerates or intra-formational breccia formed within cherty horizons of the argillite during deformation (Findlay, 1969a, p. 87). The local structure is a southeast plunging anticline with bedding on the limbs having variable dips of steeply southwest to vertical. Smaller scale deformational features - minor folds and fracture cleavage - are consistent with the larger structure. The rock units containing the sulphide bodies are presently considered to be Mississippian (D.F. Sangster, personal communications).

The west ore zone is simple, being concordant with the fairly regular bedding of the sediments. Fine-grained galena and sphalerite is present in a barite rich limestone which passes along strike into a black, graphitic

argillite within a few hundred feet of the mineralized zone.

The east zone is considered by company geologists to be a mineralized fault zone which cuts the bedding at a small angle and lies on the east limb of the major anticline. Bedding and ore dip steeply east. The zone underlies the fragmental chert rock and is strongly faulted and crumpled.

Current Work and Results:

Work during 1969 on the re-investigation of this property consisted of the lengthening of the airstrip and preparation of the portal site at an elevation of 4,750 feet on the northeast side of the valley 50 feet above the creek.

Between May and December, 1970, 7,753 feet of underground diamond drilling was completed. From the collar the 8-foot by 8-foot adit was driven south 591 feet. A drift was turned off, south 45° east, to follow the west ore zone. The main drift was continued on a heading of about north 70° east to the east ore zone. This zone was then drifted and underground diamond drilling was done from stations in both drifts.

The company presently states reserves to be 7.0 million tons grading 8 per cent lead, 8 per cent zinc and 2.7 ounces silver per ton.

ITSI RANGE AREA

Itsi Lake

NOM CLAIMS

Hudson Bay Exploration and Development  
Company Limited  
Box 2480  
Whitehorse, Yukon Territory.

Copper, Lead, Zinc  
105 I 13  
(62°50'N, 129°52'W)

References: Green, Roddick and Blusson (1967).

Claims: NOM 1 to 50

Location and Access:

The claims are 6 miles west of Mount Wilson on the boundary between the Yukon and Northwest Territories, between the headwaters of the Pelly and Ross rivers. Access is by the Canol road to Sheldon Lake and by helicopter to the property.

History:

The claims were staked in July, 1969, to cover a geochemical anomaly found in 1967.

Soil sampling and reconnaissance geological mapping was carried out and the 380 soil and silt samples were analysed for copper, lead and zinc.

Description:

The claims are underlain by Devonian and (?) Mississippian black shales, argillite and chert totalling several thousand feet as well as minor amounts of Upper Ordovician-Silurian graptolitic rocks not differentiated because of similar lithology, lack of definitive lithology and complex deformation (units 1, 18, Green and Roddick, 1967).

Current Work and Results:

Two grids were established and soil samples taken every 50 feet on lines 200 feet apart on grid No. 1 and samples every 100 feet on lines 400 feet apart on grid No. 2. All creeks in the area were sampled at frequent intervals and additional samples were taken in the broader valleys. Seventy-three rock samples were taken as well. All samples were analyzed for copper, lead and zinc and, in addition, the rock samples were analyzed for silver and gold.

Copper anomalies of over 250 ppm were found. Lead anomalies were more scattered.

ST. CYR RANGE AREA

McNeil Lake

BELL CLAIMS	Copper
Caltor Syndicate	105 G 5
Whitehorse, Yukon Territory.	(61°28'N, 131°46'W)

Location and Access:

Claim posts dating back to 1956 were found on the claim groups and a few hand trenches probably of the same age.

The 1970 program consisted of geological mapping at 1 inch to 400 feet, prospecting, soil sampling, rock trenching and sampling.

Description:

The Bell claims are underlain by a Mississippian (?) or earlier highly faulted, tightly folded, and sheared sequence of volcanic and sedimentary rocks - volcanic rocks typically being sheared, sedimentary rocks tightly folded. Calcite, quartz and barite veins, mylonite, and fault breccia also occur. The veins (1 inch to 2 feet thick) are mainly in the volcanic units as fracture fillings.

The various beds on the claim group generally strike 110° to 125° and dip 50° to 60° south-southwest. The larger faults and shear zones are generally steeply dipping and strike roughly parallel to the bedding. The main faults have been offset by less prominent northeast striking faults.

A total of nine small copper showings have been discovered on the property. Bornite, chalcopryite, chalcocite and covellite are the main copper



minerals with malachite as an alteration product.

Current Work and Results:

Assays were as follows:

- Showing No. 1 - 0.33 per cent copper and trace silver over 2 feet 4 inches across a small lense.  
0.04 per cent and 0.18 per cent copper over 10 and 14 feet respectively.
- Showing No. 3 - from 0.02 oz/ton of silver and 0.18 per cent copper over 15 feet to 0.76 per cent copper over 12 feet.
- Showing No. 4 - 0.06 per cent copper over 6 feet  
0.03 per cent copper over 6 feet  
0.10 per cent copper over 20 feet  
0.03 per cent copper over 20 feet

Soil samples taken at 400 foot intervals over most of the ridge indicated background values of 0.5 ppm for silver and 50 to 70 ppm for copper over volcanics. The background value for copper over sedimentary units was 25 to 35 ppm. Anomalous soil values have an erratic distribution and the copper and silver (usually coincident) present are in the form of small localized bodies. The largest anomalies are attributed to showing No. 3.

CPA CLAIMS

Charta Mines Limited  
c/o R.G. Hilker Limited  
Box 556  
Whitehorse, Yukon Territory.

Lead, Silver, Gold  
105 F 8  
(61°27'N, 132°26'W)

References: Wheeler, Green and Roddick (1960).

Claims: CPA Y41569 to Y41580

Location and Access:

The claim group is located on the southwest edge of the St. Cyr Range, within the northwesterly trending Pelly Mountains. The claims are situated near a major divide, with the Nisutlin River draining to the south, the Big Salmon River to the west and the Pelly River to the north. Access is presently by helicopter.

History:

The 12 CPA claims were staked on September 26, 1969 to cover a zone of three strong gossans in an area with several known lead, silver and gold occurrences.

Work in 1970 consisted of a visit by R.G. Hilker to the property in order to define the size and position of the gossan zones relative to the claim lines and to collect a few rock and soil samples.

Description:

The claim group is situated over buff rusty and pale green felsic breccias and tuffs with minor chert and brown crinoidal limestone of Mississippian or earlier age. It is part of a northwest trending belt of Paleozoic sediments and volcanics which have been highly faulted and folded.

Three large gossan areas occur on the claim group. The largest one, 3,750 feet by about 1,200 feet trends northeast across the central part of the claims. A smaller gossan, 1,500 feet by 500 feet, lies to the west and trends NE also while the third area, 2,000 feet by 700 feet, lies east and trends NNW. These are made up of iron staining on tuff and manganese oxide coating on some felsitic rocks.

Current Work and Results:

Soil samples were taken during staking in September, 1969 and rock samples and further random soil samples were taken in July of 1970.

LOGAN MOUNTAINS AREA

Hyland River

HYLAND RIVER MINES LIMITED  
301 - 543 Granville Street  
or 1002 - 549 Howe Street  
Vancouver, British Columbia.

Lead, Zinc, Silver  
105 H 1, 2  
(61°15'N, 128°30'W)

Claims: MIKO 1 to 16

Location and Access:

Property is 25 miles east of the south end of Frances Lake and about 8 miles west of Mile 47 on the Cantung Road, from which point a tote road has been built to the claim group.

History:

The claims were first staked in the spring of 1966. Hand trenching and blasting of outcrops for samples followed late that year. An airborne combined magnetic and electromagnetic survey was flown over an area which included these claims in 1968.

Description:

The rocks underlying the claims consist of biotite calc-silicate hornfels and quartzite (unit 14, Green et al, 1966) in contact with biotite quartz monzonite (unit 15, op. cit.). Foliation in the metasedimentary rocks strikes west northwest and dips south at 55 to 65 degrees. Two concordant lenses or zones containing galena and sphalerite extend for several hundred feet from the intrusive contact into the metasediments.

### Current Work and Results:

During 1969, a series of trenches at roughly 100 foot intervals were blasted across the mineralized zones. Five diamond drill holes with total footage of 1,000 feet were completed. When the property was visited by this writer in July, 1970, bulldozer trenching and stripping was in progress to further expose the mineralized zones. The best chip sample over 10 feet, very close to true width, reportedly contains 1.9 ounces of silver, 27.14 per cent lead and 21.76 per cent zinc. This zone is persistent for roughly 700 feet along strike. A second zone assays roughly 1 ounce of silver, 3 per cent lead and 4 per cent zinc across 40 feet. Persistence of this zone is not known.

### CASSIAR MOUNTAINS AREA

#### Rancheria River

LUCK GROUP  
Silver Seven Exploration Limited  
716 - 850 West Hastings Street  
Vancouver, British Columbia.

Silver, Lead, Tungsten  
105 B 1  
(60°07'N, 130°26'W)

References: Little (1959, p. 37); Poole, Roddick and Green (1960);  
Green and Godwin (1963, pp. 31-32); Green (1966, pp.80-82).

Claims: HOT 1 to 8, LUCK 1 to 6 and 13 to 28, MORN 1 to 16, SEVEN 1 to 16,  
SUSAN 1 to 6, SWAN 1 to 16, and ZORO 1 to 16, a total of 108

#### Location and Access:

The claims straddle Boulder Creek 5 miles from its junction with the Rancheria River and extend north to the headwaters of two small streams flowing north into Spencer Creek. Access is by a 2½-mile truck road from Mile 701.6 on the Alaska Highway. The nearest supply centre is Watson Lake, 70 miles by road from the camp.

#### History:

The 108 claims cover ground previously staked as the Fiddler Group (Little, 1959 and Green, 1966) and the Luck 1 to 15 group (Green and Godwin, 1963). Only the Luck 1 to 4 claims remain of the original group. The present group was staked in the summer and fall of 1969, except for the Morn 1 to 8 claims staked in June, 1968. The Luck 1 to 4 and 13 to 20 were transferred to Silver Seven Exploration Limited in September, 1970. The other claims are owned by G.E. Stephen (Morn 1 to 16), Stanley Moore (Luck 5 and 6), Paul Bochon (Susan 1 to 6, Seven 9 to 14 and Swan 1 to 16), Frank Lang (Seven 1 to 8), Tom Dick (Seven 15 and 16, Zoro 1 to 16) and G.W. McLeod (Hot 1 to 8). Silver Seven Exploration Limited also owns the claims Luck 21 to 28 staked in August, 1969.

The Fiddler group, consisting of the Bach, Greig, Elgar, Handel and Franck claims, was staked in 1943 for the Consolidated Mining and Smelting Company of Canada Limited. Some surface work was done by that company before the claims were abandoned. In 1951, the Yukon Tungsten Corporation Limited

acquired the property, constructed a truck road, drove a 530-foot adit, and raised 235 feet to the surface. A second raise intersected and followed the vein to the surface. A small crusher was brought to the property but burned before being put to use. No further work was undertaken and the claims lapsed. In 1961, ten claims, the Pete 1 to 6, Susie 1 and 2 and Hope 1 and 2, encompassing the old workings, were staked to cover a high grade silver showing and acquired by Native Minerals Limited who carried out a geological engineering evaluation program, doing extensive stripping and trenching.

The original Luck 1 to 15 group was staked in September and October 1961, by E. Krysko and transferred to Scurry Rainbow Oils Limited in November. In 1962, the company carried out self-potential and electromagnetic geophysical surveys and a geochemical survey over the claims. The anomalies outlined during these surveys were trenched and diamond drilled. Nine large open cuts were made and 13 holes, totalling 2,591 feet, were drilled. The company also constructed 5,585 feet of access roads on the property. Five more trenches were blasted in 1967 and the claims were returned to E. Krysko in 1968.

#### Description:

The rocks of the area are Lower Cambrian phyllite with interbedded lime-bearing schist and unaltered limestone beds from  $\frac{1}{2}$  inch to several feet thick (unit 3b, Poole et al, 1960). The general trend of the beds is  $325^{\circ}$  to  $355^{\circ}$  with dips of  $20^{\circ}$  to  $60^{\circ}$  E. In a few places the lime-bearing phyllite is folded; the beds dipping vertically to westerly.

The various units are cut by a series of east to northeast trending faults, fractures and shear zones filled with mineralized calcite, dolomite and quartz veins. A number of showings occur on the claim group:

a) The Luck showing (Green and Godwin, 1963) consists of a four- to five-foot thick zone of disseminated sphalerite, pyrite and massive galena lenses, to 6 inches thick and a few inches long, in lime-bearing phyllite between two faults 30 feet apart. The showing is overlain by an iron- and manganese-stained zone up to 6 feet thick containing minor sphalerite and pyrite and dipping gently to the south parallel to the foliation of the enclosing rocks. The northern fault, at the limestone-lime-bearing phyllite contact, is filled with a calcite vein trending  $80^{\circ}$  and dipping  $75^{\circ}$  south. Small calcite veinlets along the southern side of the vein contain minor scheelite. Sections of the Scurry Rainbow Oils Limited 1962 drill core assayed as follows:

Hole	Silver oz/ton	Lead %	Zinc %
Hole No. 1 over 10 feet	4.10	6.08	9.67
Hole No. 3 over 39 feet	1.66	1.47	8.32
Hole No. 4 over 21 feet	2.05	3.45	8.47

Assays of various other grab and channel samples are given in Green and Godwin (1963, p. 32).

b) The Pete showing consists of massive galena, 1 to 8 inches wide, in a shear zone trending  $310^{\circ}$  to  $325^{\circ}$  and dipping  $40^{\circ}$  to  $65^{\circ}$  northeast in limy phyllites trending  $325^{\circ}$  and dipping  $15^{\circ}$  to  $25^{\circ}$  northeast. The showing is 5,500 feet north-northeast of the Luck showing.



c) The Fiddler-West or Wolframite showing (Green, 1965), investigated by the Yukon Tungsten Corporation Limited, consists of a quartz vein or zone of veins up to 30 inches thick containing wolframite. The vein, striking 60° and dipping 25° southeast across north-northwest striking and east dipping phyllites, has been traced 650 feet down the south face of a dome-like feature. The vein consists of white, coarsely crystalline quartz with open vugs, patches and lenses of muscovite and scattered crystals of wolframite. A smaller vein, 10 feet long and 1 foot thick, north of and parallel to the main vein contains wolframite, cassiterite, chalcopyrite, galena, some silver mineral or minerals, malachite, azurite, limonite, fluorite and minor beryl.

d) The recently discovered Fiddler-East showing consists of a zone of scheelite within a coarse quartz-phyllite breccia. The scheelite concentration varies inversely as the number of quartz enclosed phyllite fragments.

e) The North showing, 3,500 feet north of the Fiddler-West showing, consists of a 6-inch zone of massive galena in a shear zone.

#### Current Work and Results:

An extensive exploration program consisting mainly of trenching, mapping and sampling of the occurrences was carried out by P.H. Sevensma Consultants Limited for Silver Seven Exploration Limited in 1969. On the Luck showing, an 800-foot by 200-foot grid was cut and soil sampled. Hand trenching was done on the calcite vein, a 100-foot to 1-inch transit-stadia survey map of the drill holes and trenches was made and the drill core from the 1962 drilling was logged. Samples of the calcite vein assayed up to 0.99 per cent WO<sub>3</sub> over 3 feet and the soil survey indicated a number of areas anomalous in tungsten. Detailed sampling of the sulphide occurrence indicated an average of 8.40 ounces silver per ton, 8.51 per cent lead and 9.90 per cent zinc over 35 feet.

The Pete showing was geologically mapped at 50 feet to 1 inch and sampled and the surrounding area was soil sampled. Samples of the showing, which lies south of a geochemical anomaly, assayed as follows:

Width	Silver oz/ton	Lead %	Gold oz/ton	Zinc %
4"	11.4	8.36	0.03	8.30
4"	159.1	34.58	0.04	1.91
8"	17.0	22.78	0.06	3.67

A geological map at 1 inch to 200 feet was prepared covering the Fiddler-West showing, the quartz vein was trenched and bulldozer stripping carried out. Samples of the vein assayed as follows:

Width	Silver oz/ton	Copper %	Lead %	Tin %	Tungsten %
3 feet	0.76	tr	0.12	tr	tr
3 feet	16.6	0.2	3.24	tr	0.67
2 feet	3.46	0.29	1.74	0.01	0.34

The Fiddler-East showing was mapped at one inch equals fifty feet and some bulldozer stripping and hand trenching was carried out. This work outlined a zone, possibly 300 feet long, 7 to 14 feet wide and with 130 vertical feet exposed on surface, samples of which assayed:

Width	Tungsten %	Copper %	Lead %	Zinc %
1 foot	0.34	0.01	0.02	0.13
5 feet	0.28	0.01	0.02	tr
7 feet	0.14	-	-	-
5 feet	0.54	-	-	-
3 feet	0.06	-	-	-
1 foot	0.53	-	-	-

A geological map on scale of 1,000 feet to 1 inch of the North showing was prepared and a sample taken which assayed 22.9 ounces silver per ton, 39.31 per cent lead and 0.63 per cent zinc over 6 inches.

#### CASSIAR MOUNTAINS AREA

##### Daughney Lake

DAN AND MOD CLAIMS  
Boswell River Mines Limited  
1177 Hastings Street  
Vancouver, British Columbia.

Lead, Zinc, Silver  
105 B 3  
(60°10'N, 131°06'W)

Reference: Poole, Roddick and Green (1960).

Claims: 272 DAN claims, MAX 1 to 60, SAM 1 to 21, WET 1 to 22

##### Location and Access:

The property lies along the Swift River in the central Cassiar Mountains. It is accessible by a road which leaves the Alaska Highway at Mile 722, passes beside the Pine Lake airstrip and continues northeast to the property, a total of 15 miles.

##### History:

The first discoveries of silver-bearing galena and sphalerite float were made by prospectors of Hudson Bay Mining and Smelting Company in 1946. Following a Bolinden EM survey by the company in 1952, the most promising anomalies were diamond drilled and found to be related to graphitic schist. The area of showings was examined by Cominco in 1962. In 1968, the present company restaked the area with an initial group of Dan claims (1-10) and conducted an EM survey in 1967. Additional claims were staked during the spring and summer of 1968 (Dan 11-272); I.P. and further EM surveys were done on selected areas of the 282 claim property during 1968.

Description:

The area is underlain by Devonian-Mississippian metasedimentary rocks - slate, quartzite, limestone, chert and graphitic schist, intruded by diorite, granodiorite and quartz monzonite. Jurassic and/or Cretaceous quartz monzonite of the Cassiar Batholith (unit 15a, Poole et al, 1960) lies immediately north of the property across the Swift River Fault.

The Ram Stock lies to the northwest and a small plug of similar quartz monzonite and granodiorite lies immediately to the south.

The main showing is a planar zone of pyrrhotite in schist, dipping steeply to the southwest, which contains sufficient sphalerite to grade 8 per cent zinc over 5.7 feet. Float samples gave grades of 0.75 ounces silver, 0.25 per cent lead and 3.2 per cent zinc.

Current Work and Results:

Work in 1969 consisted of 4,075 feet of diamond drilling using standard equipment and 283 feet of Winkie drilling.

An airborne magnetic survey was flown over 9 square miles of the property in 1970, after which additional claims were staked, bringing the total to more than 800.

NISULTIN PLATEAU AREA

Black River

RUTH GROUP	Copper
J. Melnychuk	105 B 9, 16
c/o 715 - 850 West Hastings Street	(60°44.5'N, 130°04'W)
Vancouver 1, British Columbia.	

Reference: Poole, Roddick and Green (1960).

Claims: RUTH 1 to 24

Location and Access:

The claim group straddles Black River  $\frac{1}{2}$  to 1 mile from its junction with the Liard River, 60 miles northwest of Watson Lake. Shallow draught boats can be used on the Liard River to the junction with the Black River or float-equipped aircraft or helicopters can be used to gain access to the property.

History:

The claims Ruth 1 to 24 were staked in October 1969. The claims 3 to 8 and 11 to 16 were acquired by Wye Lake Resources Limited from Mr. J. Melnychuk and Associates in December, 1970. The claims 17 to 24 lapsed in October, 1970, and the ground was restaked as the Ruth 17 to 42 claims in December, 1970, by E. Perkins, G. Zeuman, M. Lutz and J.M. Graham. The ground

covered by the claim group was previously staked as the Black claims on which a limited amount of trenching was carried out.

Description:

The property lies between the Tintina Fault to the northeast and the Twin Lake Valley Fault to the southwest in an area underlain by a series of Cambrian to Ordovician northwest trending and highly deformed limestones, dolomites, argillites and phyllites. The main outcrops on the property are thin-bedded phyllite occurring along the banks of the Black River and two small granite plugs to the southwest.

Five showings of disseminated chalcopyrite and minor quartz in siderite occur on the claims. The two major showings, on the east and west side of the Black River near the centre of the group had been trenched previously and consist of siderite veins and zones of quartz-calcite trending north for nearly 1,000 feet.

Current Work and Results:

The 1969 exploration program consisted of trenching, stripping, and trail construction.

A number of trenches were cut across the first showing along the east side of Black River. The northern trench exposed six feet of mineralized siderite, a sample of which assayed 0.52 per cent copper over 5 feet. Two hundred feet to the south occurs a 10 foot by 16 foot outcrop of siderite and chalcopyrite, samples of which assayed 1.4 per cent and 0.21 per cent copper. Southward is a zone of calcite and quartz stringers, samples of which assayed 1.2 and 2.3 per cent copper.

A 110-foot by 8-foot area was stripped along the river bank to the south where sporadic copper mineralization was exposed in phyllites and numerous quartz-siderite veins. The siderite contains a 5-foot wide shear zone striking N 45° W and dipping 50° southeast which is well leached and contains trace copper only.

Several trenches were cut on the other smaller occurrences and samples assayed 1.38, 2.4 and 5.85 per cent copper.

Further work was conducted late in 1970 on a showing on the west bank of the Black River where a rock trench exposed a 15-foot width of chloritized phyllite and quartz-carbonate breccia grading 0.02 ounces gold, 0.1 ounces silver, 0.75 per cent copper and 0.01 per cent cobalt. Minor amounts of cobalt were detected in samples taken elsewhere on the property with one sample grading 0.075 per cent cobalt.

A survey grid has been cut to facilitate further evaluation.



NAHANNI MINING DISTRICT

DISTRICT OF MACKENZIE, NORTHWEST TERRITORIES

CANADA TUNGSTEN MINING CORPORATION LIMITED  
80 Niobe Street  
North Vancouver, British Columbia.

Tungsten, Copper  
105 H 16  
(61°57'N, 128°15'W)

References: Green and Roddick (1961); Brown (1961); Skinner (1961, pp. 42-46; 1962, pp. 41-43); Green and Godwin (1963, pp. 34-37; 1964, p. 48); White (1963, pp. 390-393); Green (1965, pp. 50-51; 1966, p. 85); Findlay (1967, pp. 68-69; 1969a, pp. 89-90; 1969b, pp. 53-54).

Claims: 84 claims

Location and Access:

The Canada Tungsten Mine is in the Logan Mountains 130 miles north of Watson Lake, near the headwaters of the Flat River. The local setting is a small, east-facing cirque, with the orebody at 5,000 feet elevation. The mill and townsite, just above the Flat River, are at 3,700 feet elevation and joined to the mine by 3 miles of switchback haulage road. The 130-mile road from the property joins the Robert Campbell Highway 67 road-miles from Watson Lake.

History:

The deposit was discovered in 1954 and explored by Northwestern Exploration Limited in 1955 and 1956. After the claims lapsed in 1958, they were restaked by Mackenzie Syndicate that year and explored by diamond drilling from 1959 to 1961. In 1962, an all-weather road was constructed to the property. Prior to this time most service was by aircraft, with one winter truck haul being made. Production began in 1962 and has been continuous since that time except for an eight month period, September, 1963 to May, 1964, due to low tungsten prices and an eleven month period, January to November, 1967, while the mill was being rebuilt following a fire late in 1966.

Description:

The geological setting of the Cantung deposit is a northwest trending syncline in lower Cambrian limestone which is overturned to the northeast. Within the lower (upright) limb, a diopside-garnet-epidote skarn is host to the ore. The deposit proper is a shallowly southwest dipping lens about 300 feet wide and up to 65 feet thick. Ore occurs as fine scheelite disseminated in a massive- to heavily- disseminated pyrrhotite-chalcopyrite matrix and in veins and lenses of coarse-grained quartz, calcite and scheelite which cut the massive sulphides. Below the skarn lies pale grey-green banded chert containing scheelite-bearing pyrrhotite layers.

Current Activity:

During 1969 and 1970, exploration has been directed towards determining the extent and grade of the chert beneath the skarn. A series of short holes have been put down in the pit area and one deep hole (1,627 feet) started at 6,200 feet elevation have tested the chert horizon. Twelve hundred feet northeast of the pit area, a deep hole was drilled on coincident I.P. and Turam anomalies. A total of 14,000 feet of drilling was done in 1970.

Production Summary:

	<u>1969</u>	<u>1970</u>
Tons milled	167,389	176,816
Daily average (tons)		511.62
Grade		
W <sub>03</sub>		1.39%
Copper		0.18%
Production		
W <sub>03</sub> (STU)	203,174	186,340
Copper (lb.)	466,113	366,224
Mining (ore tons)		189,569
Waste (tons)		303,280
Reserves (mine)	733,823	558,000
	at 1.68% W <sub>03</sub>	1.56% W <sub>03</sub>
(stockpile)	84,058	89,000
	at 1.56% W <sub>03</sub>	1.43% W <sub>03</sub>

Little Dal Lake

RAY CLAIM GROUP  
Cerro Mining Company of Canada Limited  
401 - 44 Victoria Street  
Toronto, Ontario.

Copper  
95 L 10  
(62°40'N, 126°45'W)

Reference: Gabrielse et al (1965).

Claims: RAY 951 to 985, 35 claims

Location and Access:

The claim group lies on the west side of Coates Lake approximately 250 miles north of Watson Lake, Yukon Territory. Access is by plane from Watson Lake or Fort Simpson.

History:

Mineralized float was found in the area in 1962. The present work follows an initial soil geochemical survey performed by Barringer Research.

Description:

The property is underlain by quartzite, siltstone, sandstone and conglomerate of the Rapitan Formation (Lower Cambrian), by black limestone of the Cleo Formation (Precambrian) and by siltstones and mudstones of the Jan Marie Formation. Structurally, the claims lie on the west limb of a north plunging syncline.

Minor amounts of copper sulphides are present in all three formations as well as at the contact of the Cleo and Jan Marie Formations.

Current Work and Results:

A soil sampling program was carried out by Barringer Research in September, 1970. Samples were assayed for lead and copper. Several anomalous areas of copper were outlined.

PLACER MINING

DAWSON MINING DISTRICT

KLONDIKE AREA

BALLARAT MINES LIMITED  
Dawson, Yukon Territory.

115 0 15  
(63°49'N, 138°39'W)

References: Skinner (1961, p. 10; 1962, p. 10); Green and Godwin (1963, pp. 47-48; 1964, pp. 53-56); Schmidt (1964); Green (1965, pp. 56-57; 1966, pp. 89-91); Findlay (1967, pp. 72-73; 1969a, pp. 92-93; 1969b, p. 55).

This company, owned and managed by Mrs. H. Schmidt of Dawson, was active in 1969 and 1970, working deposits on Dominion (63°49'N, 138°39'W) and Quartz (63°47'N, 139°06'W) creeks as well as renewing a three claim property on Eldorado Creek. In addition to the family, the company employs a mechanic and one or two men as required.

The Dominion property consists of two company claims and 60 contiguous leased claims. During 1969, mining commenced on the right limit at approximately 3 Above Lower Discovery. This ground had been in preparation for five years and presented drainage problems. Mining was carried on below water level using two D-6 caterpillars, and a bulldozer mounted conveyor and elevated washing plant designed by the late Mr. Harold Schmidt. A coffer dam, diversion ditches, small pumps and a D-7 pump were used to maintain a dry cut. The same procedure was followed in 1970.

On Quartz Creek the company leases or owns 32 claims and operated a bulldozer sluicing plant during 1969 and 1970. A shortage of water and mechanical breakdowns kept this operation to a minimum.

During the two seasons 193,748 cu yds of gravel and overburden were handled, yielding in excess of 2,000 ounces of crude gold.

The Yukon Consolidated Gold Corporation Limited  
Suite 1660 - 1245 Sherbrooke Street West  
Montreal 109, Quebec.

The Yukon Consolidated Gold Corporation Limited continues to hold its 235 placer claims in the Klondike area, 101 of which are leased to individual placer operators.



Bonanza Creek

J. and R. Archibald  
Dawson, Yukon Territory.

115 0 14  
(63°58'N, 139°21'W)

References: Findlay (1969a, p. 96; 1969b, p. 56).

For the fourth and fifth consecutive years, the Archibald brothers operated on claims 37 and 38 Below on Bonanza Creek under lay agreement with R.E. Troberg of Dawson City. The equipment used in working this bench deposit consisted of a TD-14 bulldozer and sluicing equipment. Gold recovery was 52.24 ounces in 1969 and 68.71 ounces in 1970. High bench ground was also stripped on claims 39 and 40 on the right hand limit in preparation for the 1971 season. As well, the Archibald brothers are preparing ground on French Gulch (claim No. 2).

S. Berg  
Dawson, Yukon Territory.

116 8 3  
(64°00'N, 139°22'W)

S. Berg owns seven placer claims on Bonanza Creek, two of which, the Cinnaman and Keno claims, he worked in 1969 with the help of C. Nicholson. Operations were hampered by the presence of permafrost and the low water level, nevertheless 50,000 cubic yards of gravel and overburden were moved and sluiced. Recovery for 1969 totalled 56.78 ounces. No gold production was reported in 1970 but the seven claims were renewed.

J.C. Cooper  
Dawson, Yukon Territory.

J.C. Cooper mined on his Bonanza Creek property in 1969 and recovered 23.39 ounces on which he paid royalty tax. In 1970, he explored his Eldorado claims with intention of starting mining of these in 1971.

A.T. Fry  
Dawson, Yukon Territory.

115 0 11  
(63°37'N, 139°22'W)

References: Green (1966, pp. 94-95); Findlay (1967, p. 75; 1969a, p. 75; 1969b, p. 55).

Mining in the Grand Forks vicinity on Bonanza Creek, A.T. Fry in 1969 paid royalty tax on 127.85 ounces of gold and prepared ground for 1970 by bulldozing and ground sluicing. A monitor is used to remove the topsoil after which the gravel is fed into the sluice using a D-7 bulldozer. By August 1970, 8,000 bedrock square feet had been cleared and yielded 12 ounces of fine gold. The total 1970 production on which royalty tax was paid was 34.95 ounces.

F. Perret

Dawson, Yukon Territory.

References: Skinner (1962, p. 10); Green and Godwin (1963, p. 47; 1964, p. 58); Green (1965, p. 59; 1966, p. 96); Findlay (1967, p. 76; 1969a, p. 97; 1969b, p. 56).

In 1969 and 1970, F. Perret was active on his Bonanza Creek claims repairing equipment and stripping 30,000 bedrock square feet of ground with two TD-18 bulldozers for the 1971 season. No production values were reported for either of these years.

Gold Bottom Creek

O. Lunde

Dawson, Yukon Territory.

115 0 15

(63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, pp. 11-12); Green and Godwin (1963, pp. 49-50; 1964, p. 60); Green (1965, p. 60; 1966, pp. 98-99); Findlay (1967, p. 77; 1969a, pp. 99-100; 1969b, p. 58).

O. Lunde holds 13 claims on Gold Bottom Creek, two of which, numbers 12 and 13, he mined in 1969 and 1970. Using a D-6 bulldozer and water stored in a head pond with a manual gate, Mr. Lunde usually mines 12 to 15,000 bedrock square feet per cut, averaging about 30¢ per bedrock square foot. In 1969, he mined 45,000 bedrock square feet and recovered a total of 380 ounces of gold. In 1970, his production was 237.72 ounces from 42,000 bedrock square feet.

M. Crockett

Dawson, Yukon Territory.

115 0 15

(63°54'N, 138°59'W)

References: Skinner (1961, p. 10; 1962, pp. 11-12); Green and Godwin (1963, p. 50; 1964, pp. 60-61); Green (1965, p. 60; 1966, p. 99); Findlay (1967, p. 77; 1969a, p. 100; 1969b, p. 58).

In August, 1967, M. Crockett acquired claims 29 to 38 above the mouth of Gold Bottom Creek as well as the upper 500 feet of Discovery claim from B. Bratsberg. He has been operating a D-8 bulldozer-sluicing plant on the creek since then. In 1969, Mr. Crockett recovered 403 ounces of gold from 5 cuts totalling 54,000 bedrock square feet. The 1970 production was 357 ounces from 70,000 bedrock square feet.

Mr. Crockett also filed the assessment work required under Section 92 (10) Yukon Placer Mining Act and made application to record two placer claims within his prospecting lease on Sulphur Creek.

Dominion Creek

I. Norback

Dawson, Yukon Territory.

115 O 15

(63°47.8'N, 138°36.2'W)

References: Findlay (1969a, p. 101; 1969b, p. 59).

In 1969, I. Norback mined 25,000 bedrock square feet on his claim number 77 Below Lower Discovery on Dominion Creek and also worked on his prospecting lease covering the ground formerly owned as claims 143 to 150 Below Lower Discovery by the Yukon Consolidated Gold Corporation Limited. The total 1969 production was 183.27 ounces. In 1970, Mr. Norback staked five placer claims within his prospecting lease, renewed claims 77 and 146 Below Lower Discovery and registered two transfers of claims. His total 1970 recovery was 99.07 ounces.

S. Prohaszka

115 O 15

(63°46'N, 138°31.5'W)

In 1969, S. Prohaszka, working on a lay agreement from Walter Troberg, mined ground on Dominion Creek prepared in the fall of 1968, and prepared ground for 1970. Shortage of water was the main problem on this creek all season. Production in 1969 was 178.00 ounces and in 1970, 332.44 ounces.

A. and N. Burgleman

Dawson, Yukon Territory.

115 O 15

(63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12); Green and Godwin (1963, p. 52; 1964, pp. 61-62); Green (1965, p. 61; 1966, p. 100); Findlay (1967, p. 77; 1969a, p. 100; 1969b, p. 58).

Mr. and Mrs. Burgleman continued mining in 1969 and 1970 on their claims on Dominion Creek. In 1969, a total of 30,000 cu yds of gravel were moved and royalty tax was paid on 235.87 ounces of gold. In 1970, the tax was paid on approximately 340 ounces of gold.

Hunker Creek

A. Kosuta

116 B 3

(app. 64°00.5'N, 139°05'W)

A. Kosuta owns five claims on Eighty Pup, a tributary of Hunker Creek, which he works using a D-6 bulldozer and a sluice box. In 1969, he started work early in May and finished late in October, stripping, mining, and additionally clearing and damming a 4-mile ditch. His work on the No. 1 and No. 2 claims produced 142.87 ounces of gold. In 1970, the production was 143.57 ounces.

B. Bratsberg

Dawson, Yukon Territory.

(a) 115 0 14

(63°47'N, 139°05'W)

(b) 115 0 15

(app. 63°58'N, 138°58'W)

In 1969, B. Bratsberg mined on Little Blanche and Quartz creeks (a). A total of 177,777 cu yds of gravel were processed by ground sluicing and bulldozer stripping. Royalty tax was paid on a total of 233.02 ounces of gold

In 1970, Mr. Bratsberg moved to his ground on Hunker Creek (b) where mining was carried out using one D-8 bulldozer to feed the sluice and a drag-line to clear the tailings.

Allgold Creek

K and S Placers

Whitehorse, Yukon Territory.

115 0 15

(63°56'N, 138°37.5'W)

References: Skinner (1962, p. 14); Green and Godwin (1963, p. 56; 1964, p. 66); Green (1965, pp. 63-64; 1966, pp. 103-104); Findlay (1967, p. 79; 1969a, p. 103; 1969b, p. 60).

K and S Placers, owned and operated by M. Kinakin, leases the Discovery and 1 to 10 Above on Allgold Creek from Consolidated Brewis Minerals Limited and owns the claims 11 to 30 Above. Work by M. Kinakin in 1969 consisted of mining on claims 9 and 10 Above and the preparation of ground for 1970. Production was 379.94 ounces. Mining in 1970 lead to the recovery of 106.98 ounces.

Gold Run Creek

Gold Run Placers Limited

Dawson, Yukon Territory.

115 0 10

(63°43.5'N, 138°41'W)

Gold Run Placers, owned and operated by J. Lamontagne and E. Schink, leases claims 36 to 51 on Gold Run Creek from the Yukon Consolidated Gold Corporation. In 1969, work was carried out on claim No. 39, two D-6 bulldozers being used in mining and stripping ground for 1970. Total production for the 1969 season was 1,004.22 ounces of gold. In 1970, mining was stopped in August after six clean ups which produced 844.80 ounces. The estimated grade of the deposit is 12ø to 16ø per bedrock square foot.

Mr. Lamontagne also owns a 28 claim property on Eldorado Creek and Chief Gulch which he obtained from J.P. Castonguay in June, 1970.



Consolidated Mines (Yukon) Limited  
Dawson, Yukon Territory.

115 O 15  
(63°42'N, 138°36'W)

References: Findlay (1969a, pp. 101-102; 1969b, p. 59).

Consolidated Mines (Yukon) Limited, owned by L.M. Ross and T. Matson, continued work on the leased claims 8 to 32 Above on lower Gold Run Creek. Using two D-8 bulldozers to feed the sluice boxes and a Bucyrus Erie 37-B dragline to remove tailings, the two men recovered 1,000 ounces of gold from 190,000 bedrock square feet in 1969. Work was hampered by a lack of water and a short season lasting from late April to early September. By September 21st, 1970 Mr. Ross had finished mining the Gold Run Creek property and was preparing to move to Eureka Creek. Total production in 1970 was 691.20 ounces.

Last Chance Creek

J. and I.C. Bremner  
Dawson, Yukon Territory.

116 B 3  
(64°00'N, 139°07'W)

In 1969, the Bremners worked with monitor and sluice box on their bench claim on Dago Hill, Last Chance Creek. A total of 240 ounces were recovered from a cut up to 35 feet deep and covering an area of 10,000 bedrock square feet.

In 1970, working with one hired man and the same equipment, Mr. Bremner produced 231.30 ounces of gold.

Adams Creek

H.C. and D.F. Boutillier  
Dawson, Yukon Territory.

115 O 14  
(63°55'N, 139°21'W)

References: Skinner (1961, p. 9; 1962, pp. 9-10); Green and Godwin (1963, p. 46; 1964, p. 57); Green (1965, p. 58; 1966, p. 95); Findlay (1967, p. 75; 1969a, pp. 95-96; 1969b, p. 56).

In 1969, the Boutillier brothers worked on Adams Creek, where they own 11 claims, and on claims 11, 13 and 27 on Eldorado Creek. A total of 17,000 cu yds of gravel were processed, yielding an unknown amount of gold. In August, 1970, mining was being carried out on Adams Creek with the use of a monitor to remove the gravel from the hillside and a TD-40 tractor to feed the sluice and stack the tailings. Water for both the sluice and the monitor is pumped from the creek through a "T" valve which controls the water at the pump. The royalty tax was paid on 77.57 ounces of gold in 1970.

Quartz Creek

A. Sailer

Dawson, Yukon Territory.

115 O 14

(63°47'N, 139°06'W)

References: Green (1965, p. 62; 1966, p. 102); Findlay (1967, p. 79; 1969a, p. 102; 1969b, p. 60).

Between late April and early October, 1969, A. Sailer worked 20,000 cubic yards of gravel and overburden using a D-6 bulldozer on his ground on Quartz Creek and recovered 85.94 ounces of gold. Production in 1970 was 219 ounces.

SIXTYMILE AREA

Miller Creek

O. and D. Medby

Dawson, Yukon Territory.

References: Green and Godwin (1964, pp. 69-71); Green (1965, pp. 66-67; 1966, p. 108); Findlay (1967, p. 80; 1969a, p. 104; 1969b, p. 61).

O. and D. Medby presently hold two claims on the Sixtymile River and five claims on Miller Creek, including the Discovery Bench claim. In 1969, F. Chudy and J. Simcox sank a 5 x 5-foot shaft 45 feet to bedrock on the Miller Creek property. Then, using a mucking machine, a jackleg drill and a compressor they drifted along a pay streak, recovering 45 ounces. No work was reported during the 1970 season but the claims were renewed.

E. Greenly

116 C 2

(app. 64°01'N, 140°50'W)

Mr. Greenly holds ground on the two adjacent Miller and Glacier creeks. Work in 1969 on the Glacier Creek property led to the recovery of 6.5 ounces of gold. In 1970, gravel was hauled 200 feet from the bench to the sluice on Miller Creek and fed in using a John Deere tractor. Production in 1970 was 35.00 ounces.

Glacier Creek Placers

Dawson, Yukon Territory.

116 C 2

(64°02.2'N, 140°49'W)

Glacier Creek Placers, owned by M.G. Grenier, E. Faucher and L. Grimard, hold 15 claims on Glacier Creek, starting at a point about  $\frac{1}{2}$  mile upstream from Glacier Creek P.O. (abandoned). Using two D-6 bulldozers, M.G. Grenier recovered 347 ounces of gold in 1969 from cuts totalling 30,000 bed-rock square feet. The operations were hampered by a lack of water and the necessity to prepare frozen ground for the 1970 season. The water level was still low in August, 1970, by which time the operators had made three clean-ups. Royalty tax was paid on 196.39 ounces for the 1970 season; 37.57 ounces

of gold were also recovered from the Sixtymile River property of Glacier Creek Placers.

J. Lynch  
Dawson, Yukon Territory.

116 C 2  
(64°02'N, 140°53'W)

References: Green (1965, p. 67); Findlay (1969a, p. 105, 1969b, p. 61).

J. Lynch owns 11 claims on Glacier and Big Gold creeks. In 1969, he mined and prepared ground for the 1970 season on the Faucher Discovery claim on Glacier Creek. Using a D-7 bulldozer to feed sluice box and stack tailings, Mr. Lynch recovered 206.90 ounces of gold in 1969 and 147 ounces in 1970.

#### MAYO MINING DISTRICT

##### HAGGART CREEK AND DUBLIN GULCH AREA

##### Haggart Creek

Spruce Creek Placers  
Mayo, Yukon Territory.

106 D 4  
(64°01'N, 135°51'W)

References: Skinner (1961, p. 15; 1962, p. 18); Green and Godwin (1963, pp. 57-58; 1964, pp. 74-75); Green (1965, pp. 70-72; 1966, pp. 110-112); Findlay (1967, pp. 82-83; 1969a, p. 106; 1969b, p. 62).

Spruce Creek Placers, acquired in 1969 by K. Djukastein from J.M. Acheson, F.M. Wilson and W.L. Drury, holds a 22 claim lease from the E.H. Barker estate on Haggart Creek and the 2-mile prospecting lease No. 2806. The property has been mined since 1953 by Spruce Creek Placers and for the last two years by K. Djukastein. His production in 1969 totalled 1,670 ounces from 140,000 bedrock square feet and in 1970 he paid royalty tax on 1,283 ounces.

Dublin Gulch

F. Taylor

Mayo, Yukon Territory.

106 D 4

(64°02'N, 135°50'W)

References: Skinner (1961, p. 14; 1962, p. 17); Green and Godwin (1963, pp. 59-60; 1964, pp. 76-77); Green (1965, pp. 72-73; 1966, pp. 112-113); Findlay (1967, p. 83; 1969a, p. 107; 1969b, p.63).

F. Taylor owns property on Haggart Creek and its tributary, Dublin Gulch. The seven claim property extending upstream from the mouth of Dublin Gulch has been mined intermittently by Mr. Taylor since 1937.

In 1969, a total of 800 ounces of gold were recovered from 50,000 bedrock square feet on Dublin Gulch. Production in 1970 was restricted to Dublin Gulch and totalled 208.00 ounces.

HIGHET CREEK AREA

Highet Creek

E.C. Bleiler

Mayo, Yukon Territory.

115 P 16

(63°45.5'N, 136°09'W)

References: Skinner (1961, pp. 15-16; 1962, p. 19); Green and Godwin (1963, pp. 60-61; 1964, pp. 78-79); Green (1965, pp. 73-76; 1966, pp. 113-114); Findlay (1967, pp. 83-84; 1969a, p. 108; 1969b, pp. 63-64).

E.C. Bleiler held 34 placer claims on Highet Creek in 1968. On this property, stripping and mining are accomplished by a monitor system using water routed through a ditch that taps Highet Creek further upstream. In 1969 and 1970, Mr. Bleiler paid royalty tax on 493.5 and 391.75 ounces of gold respectively.

SOURDOUGH HILL AREA

Thunder Gulch

Bardusan Placers Limited

Mayo, Yukon Territory.

105 M 14

(63°54.5'N, 135°15'W)

References: Findlay (1969a, pp. 111-112; 1969b, pp. 64-65).

H. Barchen, owner and operator of Bardusan Placers Limited, owns eight claims on Thunder Gulch, a tributary of Lightning Creek on the northwest flank of Sourdough Hill. Barchen started mining in mid 1967, producing 300 ounces in 1968 of which over half was jewellery grade. In 1969, he recovered and payed placer royalty on 232 ounces while the 1970 production was 272 ounces. In 1969, Barchen obtained a prospecting lease on the ground above his claims to protect his future hold on the creek.



WHITEHORSE MINING DISTRICT

KLUANE LAKE AREA

Burwash Creek

S. Kinakin

115 G 6  
(app. 61°22'N, 139°17'W)  
115 O 15  
(app. 63°56'N, 138°59'W)

Sonya Kinakin was active in two areas over the 1969 and 1970 seasons. Production from Burwash Creek in 1969 was 30.5 ounces. In 1970, production from Burwash Creek was 42.68 ounces and from Gold Bottom Creek, 59.02 ounces.

Burwash Mining Company Limited

(61°22.5'N, 139°17'W)

H. Besner owner and operator of Burwash Mining Company Limited, mined claims in virgin ground on Burwash Creek in 1969 with the help of two employees. Approximately 800 crude ounces were recovered. A Bucyrus Erie 22-B 3/4 yard shovel is used to feed the sluice. Tailings are stacked with a D-7 and D-8 bulldozer.

The assets of the company were sold to J. Doran of Oregon who mined the property in 1970. Four men, working on 90-foot by 90-foot centre cuts, recovered about 183 ounces during the 1970 season.

Bullion Creek

H. Thorsen

115 B 15  
(60°58.5'N, 138°39'W)

References: Skinner (1961, p. 17; 1962, p. 21); Green and Godwin (1963, pp. 62-63); Findlay (1967, p. 87; 1969a, p. 113; 1969b, pp. 65-66).

H. Thorsen holds fourteen claims on lower Bullion Creek below the mouth of Wolf Creek. Using a D-7 bulldozer and feeding an average of three cubic yards of dirt into the sluice at one time, Mr. Thorsen moves about 15,000 cubic yards per season from 100 foot square cuts. His production in 1969 and in 1970 was approximately 100 ounces each year.

COAL MINING AND EXPLORATION

WHITEHORSE MINING DISTRICT

NIAMODLAOC MOUNTAIN COAL PROSPECT  
Norman H. Ursel Associates Limited  
Suite 7 - 2395 Cawthra Road  
Mississauga, Ontario.

Coal  
115 G 6 SE 1/4  
(61°16'N, 139°07'W)  
115 G 3 NE 1/4  
(61°14'N, 139°06'W)

References: Cairnes (1915); Muller (1967); Nandi, Speelman and  
Montgomery (1971).

Licences: Territorial Coal Exploration Licences No. 14 and 18

Location and Access:

The licence areas lie south of the Alaska Highway at the headwaters of Halfbreed and Ptarmigan creeks. Area is accessible by roads from the Alaska Highway up Ptarmigan and Halfbreed creeks, the latter road leaving the highway at Mile 1088.

History:

Cairnes (1915) stated that 12 seams of lignite coal occur in the rocks on Amphitheatre Mountain; rocks now referred to as the Amphitheatre Formation.

Description:

The Amphitheatre Formation (unit 20, Muller, 1967) consists of Paleocene or Eocene clastic sedimentary rocks - conglomerates, sandstones, siltstones, shales and coal, as well as the poorly consolidated equivalents of these. There is a rough trend of decrease of coarse clastic material and increase of coal upwards.

St. Clair volcanic rocks, mostly basalt, overlie the Amphitheatre Formation. Sills and dykes intrude these older Tertiary rocks. The sequence is gently folded.

Current Work and Results:

During the 1970 field season coal seams were examined at several localities on the western side of Niamodlaoc Mountain. Channel samples were taken at the northernmost locality, where earlier workers had described a 6 foot and a 3 foot seam present in an interval of 22.5 feet. Additional coal occurrences were found to the south. In an adjacent creek, where downslope movements made measurements uncertain, company geologists believe there are at least 4 coal seams present, with an aggregate thickness of 12 feet, the thickest being 5 feet. Two and one half miles to the south of these occurrences, at a similar stratigraphic position, 3 seams are present with an aggregate coal thickness of 13 feet in a 50 foot interval.

Some 650 to 800 feet stratigraphically lower than those described, a coal seam was discovered divided by a sill of partly altered andesite with 11 feet of coal below the sill and 3 feet above. Channel samples of coal and altered coal were taken, and in conjunction with the Fuels Research Centre, Department of Energy, Mines and Resources, Ottawa, a study of the natural carbonization (Nandi, Speelman and Montgomery, 1971). Carbonaceous matter forms thin margins in dykes which are probable feeders of the sill. Prospecting dykes for the presence of this carbonaceous matter, thought to represent condensate of distilled coal tar, may be a useful coal exploration technique elsewhere in this area.

Lump resin is common in the coal seams examined. A preliminary test of solubility and melting point indicates that the resin may be satisfactory raw material for use in the manufacture of printing ink.

NORMAN H. URSEL ASSOCIATES LIMITED  
Suite 7 - 2395 Cawthra Road  
Mississauga, Ontario.

Coal  
115 I 1, 8, 115 H 16  
105 E 5

References: Bostock (1936); Cairnes (1910).

Location and Access:

Several prospects in the Carmacks and Laberge map-area were examined, using the Whitehorse-Dawson Road and the Yukon River for access.

History:

Coal has been described at various localities, occurring in the upper part of the Laberge Group and in the overlying Tantalus Formation (Cairnes, 1910; Bostock, 1936). Coal was produced from the Five-Finger Mine for sale in Dawson City in the very early 1900's. Some development work was done from 1906 to 1908. Coal was also produced from the Tantalus Mine at this time.

Description:

1. Probable upper Laberge sandstone outcrops at the mouth of Tatchum Creek, 12 miles north of Carmacks. Coaly plant fragments are present in the sandstone, but no coal float or seams were found.

2. At the old Five-Finger Mine, 8 miles north of Carmacks, two coal seams are present, in the upper part of the Laberge Group, interbedded with a prominent dolomitic limestone and a fine-grained sandstone. The lower of the two seams mined at the turn of the century is roughly  $3\frac{1}{2}$  feet thick.

3. At the old Tantalus Mine at Carmacks, an 18-foot coal seam occurs in the Tantalus Formation.

4. South of Carmacks, rocks mapped by Cairnes (Map 10A, 1910) contain thin coal beds locally thickened to 5 feet. The coal is intensely deformed, having acted as an incompetent layer between gently folded sandstone and conglomerate.

5. Southwest of Braeburn Lake in the area covered by Territorial Coal Exploration Licence No. 14 (105 E 5 - NW  $\frac{1}{2}$ ) the Laberge Group is folded about northwest trending axes and the stratigraphic interval which is coal bearing to the west (see p. 157, on Teslin Exploration Limited) probably occurs in Licence area 14 as there is a covered stratigraphic interval of up to 3,000 feet between Laberge conglomerate and the lowest Tantalus Formation rocks, which do overlies coal bearing rocks.

#### Current Work and Results:

In a 3 month period, during the 1970 field season, coal occurrences as well as stratigraphic sections containing these were measured and described. The marker horizons of sandstone and limestone recognized at the old Five-Finger Mine as being closely associated with the coal may prove useful in correlation.

TANTALUS BUTTE MINE  
Anvil Mining Corporation Limited  
Faro, Yukon Territory.

Coal  
115 I 1  
(62°08'N, 136°16'W)

References: Bostock (1936a, pp. 59-62); Wheeler (1961, p. 74);  
Green (1966, pp. 121-122); Findlay (1967, p. 88; 1969a, p. 15;  
1969b, pp. 66-67).

#### Location and Access:

The mine and storage facility are 4 miles north of the community of Carmacks on the right limit of the Yukon River, and less than one-half mile from the Whitehorse-Mayo Road.

#### History:

The mine operated from about 1923 until 1967, being owned from 1947 on by the Yukon Coal Company. Main use for the coal was as heating fuel for United Keno Hill Mines operations at Elsa. Maximum annual production was 14,113 tons (1954).

#### Description:

The coal occurs in the Tantalus Formation of Upper Jurassic (?) and Lower Jurassic age, consisting of conglomerate, with lesser amounts of sandstone, shale and a few coal seams (Bostock, 1936a, p. 74). The main seam ranges from 8 to 20 feet thick, strikes north and dips from 45 to 59 degrees W. It is cut by northeast trending, steeply southeasterly dipping faults. The coal is a high volatile (30 - 35 per cent) bituminous with a calorific value of from 11,000 to 12,700 btu. All samples are agglomerating and have a swelling index of 1 (ASTM). Coals of this type are not suitable for making metallurgical grade coke (Green, 1966, p. 124).



Current Activity:

In 1968, Anvil Mining Corporation Limited purchased the assets of the Yukon Coal Company and returned the property to production in July of 1969. Underground workings were rehabilitated and a 175 ton tippie was built. Following a breaking-in period, production was consistently about 80 tons per day during late 1969 and 1970. Production is to be increased to greater than 100 tons per day during 1971. The coal is back hauled by the concentrate trucks on their return from Whitehorse to the Anvil Mine. The coal is used by Anvil Mining Corporation to fire the concentrate driers and to heat the plant.

TANTALUS COAL PROJECT  
Atlas Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia.

Coal  
105 L 2  
105 E 15  
(62°00'N, 134°47'W)

Reference: Bostock and Lees (1938).

Licences: Territorial Coal Exploration Licences No. 6, 7, 8 and 9

Location and Access:

The area covered by the licences lies just east of the junction of the Yukon and Big Salmon rivers. Helicopters were used for servicing the exploration program during 1970; however, access by boat along the Yukon River to Big Salmon (abandoned) is also feasible.

History:

The area was mapped by E.J. Lees in 1931 (Bostock and Lees, 1938).

Description:

The area covered by the licences is mostly subdued, with gentle hills rising 2,000 feet above the broad, alluvium- and glacial debris-filled valleys. The area examined, the Tantalus Basin, is underlain largely by clastic sedimentary rocks of Mesozoic age. Other than a small area of Yukon Group schist, the oldest known rocks are limestones and cherts of the Lewes River Group (Upper Triassic). Unconformably above these are the conglomerates, sandstones and coal of the Laberge Group (Jurassic) and the conglomerates, sandstones and coal of the Tantalus Formation (Upper Jurassic and Lower Cretaceous). Thin stringers of coal occur interlaminated with siltstone.

Current Work and Results:

Two men mapped at 1:50,000 scale for two months in the licence area. Coal as float and in thin seams was found on Jumpont Creek, 10 miles north-east of the site of Big Salmon.

TESLIN EXPLORATION LIMITED  
Box 8592, Station F  
Calgary, Alberta.

Coal  
115 H 8, 105 E 5  
(61°18'N, 136°02'W)

References: Bostock (1934, Map 372A); Cairnes (1910).

Licences: Territorial Coal Exploration Licences No. 10, 11, 12

Location and Access:

The area covered by the three licences is approximately 50 miles north of Whitehorse in the western Laberge (105 E 5) and eastern part of the Aishihik (115 H 8) map-areas; each licence covering 46,012 acres. The coal outcrop examined on Division Mountain is 18 miles southwest of Braeburn Lodge (Mile 55 on the Dawson Highway) and immediately east of the Nordenskiöld River. Terrain is the hilly topography of the Yukon Plateau with local relief of about 1,500 to 2,000 feet.

History:

D.D. Cairnes of the Geological Survey of Canada visited the area in 1907, having as one of his objectives the discovery and description of possible coal occurrences. E.J. Lees (1938), also of the Geological Survey of Canada, mapped part of the Laberge area (in which is licence area No. 12 of Teslin Exploration Limited). Cairnes discovered coal outcrops on Division Mountain and on Red Ridge, four miles to the northwest.

Description:

The rocks of the area belong to the Laberge Group (Jurassic) and the Tantalus Formation (early Cretaceous). The Laberge here consists of sandstone to fine conglomerate with some intercalated shales and coal. Some highly ferruginous conglomerate is regarded as belonging to the Tantalus Formation. In 3,000 feet of section in the Laberge Group, the strike is consistently north 50° west and the dip 60° to 70° southwest. The company view is that the known coal seams are in the uppermost part of the Laberge Series, perhaps within 500 feet of the overlying Tantalus conglomerate.

Current Work and Results:

A series of seven trenches, a total of 550 feet, were dug over the Division Mountain coal occurrence, using a D-6 and a D-7 bulldozer. Four were dug along the coal seams in an attempt to obtain the freshest possible material for sampling. The deepest samples were taken from about 18 feet below the present surface. Three trenches were dug across the coal measures to obtain thickness measurements. The coal occurs over a stratigraphic interval of 1,000 feet with the 150-foot trenched interval having an aggregate coal thickness of 61 feet. Limited analyses available indicate the coal to be a low sulphur, good quality steam coal. Based on the work described, the inferred reserves amenable to strip mining, are 40,000,000 tons (Teslin Exploration, personal communication).

When visited by this writer in August, 1970, the trenches were complete. The coal seams strike north 40° west and dip from 65° west to vertical. The beds are offset by vertical faults which trend north 15° east, along which there has been horizontal movement of 20 to 30 feet.

WHITEHORSE COAL AREA  
Luscar Limited  
918 Royal Bank Building  
Edmonton, Alberta.

Coal  
105 D 6 NW  $\frac{1}{4}$ , NE  $\frac{1}{4}$   
105 D 11 SW  $\frac{1}{4}$   
(60°30'N, 135°15'W)

References: Cairnes (1908; 1912); Wheeler (1961).

Licences: Territorial Coal Exploration Licences No. 3, 4, and 5, total area 142,045 acres.

Location and Access:

The area underlain by coal-bearing rocks is 15 miles southwest of Whitehorse, physiographically in the transition zone between the Coast Mountains to the southwest and the Yukon Plateau to the northeast. Valleys are wide and fairly flat, the lower slopes of the mountains steep, and the uplands gently rolling. Glacial debris is abundant up to 6,000 feet.

Most convenient access is by helicopter from Whitehorse, however, vehicles can get to within 1 or 2 miles of the coal outcrops by way of an 11-mile bush road which leads west from Robinson, 22 miles south of Whitehorse on the Carcross Road.

History:

Coal has been known in the area southwest of Whitehorse since the turn of the century. Discoveries, reported by McConnell in 1900, were surveyed in 1901. By 1906, three seams, reported by Cairnes (1908) to be 2'6", 10'4" and 9'8", were known. A 60-foot adit was driven on one seam and numerous test pits and trenches were dug.

Description:

A northwest trending, 12-mile long wedge of non-marine Tantalus Formation (Upper Jurassic and Lower Cretaceous) rocks is downfaulted between Laberge Group (Lower Jurassic and later) sediments on the northeast and volcanic rocks, converted to greenstone, of the Upper Triassic Lewes River Group on the southwest. The Laberge and Tantalus rocks dip steeply northeast and form the southwest limb of the Fish Lake syncline. The Tantalus Formation here consist of quartz and chert pebble conglomerate having an arkosic matrix, arkose and minor black shale. The coal seams are associated with the black shale part of the sequence. The Tantalus section here is estimated to be from 500 feet thick at the point of the wedge in the northwest, to possibly 5,500 feet in the southeast. This last section may involve repetitions of strata due to faulting. Where the coal seams were examined, near the central part of the belt, stratigraphic thickness is about 1,800 feet.

Current Work and Results:

One month was spent in field work, on behalf of Luscar Limited, during the 1969 season, with the objects of verifying data from the old reports, determining whether there was sufficient coal to be of current interest, and establishing whether any of such coal could be strip mined.

The coal members were traced discontinuously for roughly  $7\frac{1}{2}$  miles. At two places,  $1\frac{1}{2}$  miles apart, three seams were found within the same stratigraphic interval. The best seam measured and sampled is slightly greater than 6 feet thick and is a low quality, high ash anthracite.



Appendix A

Reports accepted for assessment credit - 1969 and 1970

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-21-127-25 95 D 6	MEL Winco Mining & Exploration Ltd. Geo-X Surveys Ltd.	25/11/69	Airborne mag
60-07-130-26 105 B 1	LUCK, MORN, SUSAN, ZORO, SWAN, HOT Silver Seven Explorations Ltd. P.H. Sevensma	28/10/70	Geol mapping, soil sampling, trenching, Core logging
60-10-131-15 105 B 3	DAN, MOD Boswell River Mines Eagle Geophysics Ltd.		I.P., Resistivity and E.M.
60-10-131-15 105 B 3	DAN, MOD Boswell River Mines Eagle Geophysics Ltd.	20/09/69	Geophysics, E.M.
60-44-130-04 105 B 9	RUTH Wye Lake Resources A.S. Ashton	19/10/70	Geological
60-55-133-35 105 C 13	NW, RH, XY Northwest Explorers (1967) Ltd. D.C. Mitchell	22/10/70	Geochem soil survey
60-55-133-35 105 C 13	NW Northwest Explorers (1967) Ltd. R.G. Hilker	13/04/70	Geochem
61-00-133-45 105 C 13	MAC McGregor Telephone & Power Construction Co. Ltd. K. Warren Geiger	1/05/70	Geochem Rec
60-55-133-00 105 C 14	LINDSAY Trans Yukon Exploration Ltd. Eagle Geophysics Ltd.	16/09/69	Geophysics
60-55-133-00 105 C 14	LINDSAY Trans Yukon Exploration Ltd. P.H. Sevensma	13/03/69	Geological (summary)
60-55-133-00 105 C 14	LINDSAY Trans Yukon Exploration Ltd. R.G. Hilker	16/09/69	Physical, Geophysics

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-55-133-00 105 C 14	LINDSAY Trans Yukon Exploration Ltd. R.G. Hilker	16/09/69	Geochem Interpret- ation
60-00.5-134-33 105 D 2	LULU Premier Mining Corp. Ltd. R.G. Hilker	14/10/69	Mag and Geochem
60-05-135-00 105 D 2	ROY, ERIC Mogar Mines Ltd. Hugh Sutherland	11/07/69	Geophysical, E.M.
60-37-134-09 105 D 9	WIND R.G. Hilker	19/11/69	Property examination
60-35-134-45 105 D 10	GORD, HALL, JELLY, BRISTOL, STAR, OTTER, NECK, TIZA, WOLF, MEB Wolf Creek Mines R.W. Cannon	1/12/70	Geophysical
60-35-134-45 105 D 10	TOPAZIOS, DOBIE, SHACK, LAW, COPPER, SHAFT, OROT, DAVE, HELL, RUTH Topazios Mining & Exploration Co. Ltd. Canex Aerial Exploration Ltd.	30/10/70	Geophysical
60-35-134-45 105 D 10	AZ, AC, AD, BC, CC, AF, EZ, TOADSTOOL, RED DEER, HULK, PUTA, HILK, CUB Lewes River Mines Ltd. F.W. Cannon	13/01/71	Geophysical, I.P.
60-40-135-00 105 D 10, 11, & 14	COWLEY PARK, WAR EAGLE, BEST CHANCE New Imperial Mines Ltd. D. Tenney	18/01/71	Geochem survey
60-45-135-14 105 D 11, 14	MIKE Trans Western Investments Peter E. Walcott	17/07/70	Geological, geo- physical, I.P. & Mag

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-45-135-14 105 D 11, 14	MIKE Dawood Mines Ltd. Peter E. Walcott	17/07/70	I.P., Mag.
60-46-135-10 105 D 14	MAN Ambassador Mines Ltd. Harvey H. Cohen	26/05/69	Airborne Geophysics
60-15-137-15 115 A 6	KEL Kel-Glen Mines Ltd. Wm. Dollery-Pardy	16/09/69	Geology, Geophysics Geochem
60-30-137-35 115 A 12	MAG, JOY, JEAN, STOCK STAR, TRSS Kathex Mines Ltd. J.B Baird	10/03/70	Turam survey
61-08-128-40 105 H 2	KF, DF, FLIP Montana Mines Ltd. (N.P.L.) Montana Mines Ltd. (N.P.L.)	5/09/69	Geochem, Geophysics
61-15-128-40 105 H 2, 7	RENO Nebco Oils Ltd. R.G. Hilker	26/06/70 3/07/70	Geochem
61-25-128-25 105 H 8	BRYAN Norquest Joint Ventures Crest Laboratories (B.C.) Ltd.		Geochem
61-28-131-46 105 G 5	BELL Caltor Syndicate A.C. Ogilvy, P.N. Tredger	3/11/70	Mapping, Sampling
61-40-130-55 105 G 10	BOT Atlas Explorations Ltd. K.M. Dawson	3/08/70	Mag, Geophysical
61-40-130-55 105 G 10	BOT Atlas Explorations Ltd. K.M. Dawson	3/08/70	Geol mapping
61-29-132-26 105 F 8	CPA, MIN Charta Mines Ltd. R.G. Hilker	23/11/70	Geological
61-52-132-25 105 F 14	CAB Atlas Explorations Ltd. J.M. Bremner	8/12/69	Geochem
61-52-132-25 105 F 14	CAB Atlas Explorations Ltd. J.M. Bremner	11/12/69	Geological

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-52-132-53 105 F 15	JN Silver Chief Minerals Ltd. Roving Exploration Services Ltd. John T. Coor	7/04/70	Gravimetric survey
61-12-134-11 105 E 1	BEAVER, MINK The Colorado Corp. P.H. Sevensma	17/07/70	Geol mapping, Geo- chem soil sampling, line cutting, Mag
61-29-136-45 115 H 7	KL Mitsubishi Metal Mining Co. Toru Kikuchi	23/06/70	Geol, Geochem
61-25-139-30 115 G 5, 6	AMP Nicanex Mines Ltd. T.L. Sadlier-Brown E.O. Chisholm	4/02/71	Geochem
61-20-139-45 115 G 5	GOAT Newmar Explorations Ltd. W.R. Newman	25/09/70	Geol, Photo Geol
61-23-139-25 115 G 6	CORK Imperial Oil Enterprises Canadian Industrial Gas and Oil Ltd. Bow Valley Land Co. Imperial Oil Enterprises	9/10/69	Geological
61-29-138-12 115 G 8	ED, ADD Phelps Dodge Corp of Canada F.M. Smith	15/03/71	Geol, Geochem
61-28-138-08 115 G 8	'A', 'B', 'K' Phelps Dodge Corp. of Canada Phelps Dodge Corp. of Canada	15/03/71	Geol, Geochem
61-41-139-21 115 G 11	CAM Arrow Inter-America Corp. J. Mackie	27/08/69	Geophysics
61-41-139-21 115 G 11	CAM Arrow Inter-America Corp. E.O. Chisholm	27/10/70	Geol, Geochem, Geophysics
61-51-138-34 115 G 15, 16	MAX Atlas Explorations Ltd. G.H.K. Pearse, D. Francis, D. Brabac	7/12/70	Geol, Geochem, Geophysical



Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-35-140-57 115 F 10	K-Cu White River Mines Ltd. (N.P.L.) Huntec	29/12/69	Geophysical on I.P. survey
61-50-140-33 115 F 15	LEP Imperial Oil Enterprises Richard W. Oddy	11/08/70	Geochem soil sampling
61-47-140-51 115 F 15	ORE Ronex Mines Ltd. R.E. Renshaw	13/04/70	Geological
62-40-126-45 95 L 10	RAY Cerro Mining of Canada Ltd. B.W. Smee, D. Mustard	16/10/70 6/11/70	Geochem soil survey
62-50-129-52 105 I 13	NOM Hudson Bay Exploration & Development Co. P. Slewchuk, R.T. McIntosh	2/04/70	Geochem
62-45-130-15 105 J 9	JOY Spartan Exploration Ltd. Spartan Exploration Ltd.	11/09/69	Geophysical
62-45-130-15 105 J 9	JOY Spartan Exploration Ltd. Spartan Exploration Ltd.	11/09/69	Geological
62-45-130-15 105 J 9	JOY Spartan Exploration Ltd. Spartan Exploration Ltd.	11/09/69	Geochem
62-20 to 62-30 133-00 to 133- 30 - 105 K 6	ZAN, MX, AC, KO, TIM, JET Kangaroo Exploration Corp. Ltd. Peter F. Walcott	18/02/71	Geophysical, I.P.
62-05-132-31 105 K 2	SOUTH, EM Branta Explorations Ltd. P.H. Sevensma		Geol, Geochem
62-05-132-40 105 K 2	SANK, TOP Citex Mines Ltd. S.V. Ramani, S. Vankataramani	19/03/71	Mag
62-05-133-05 105 K 2	AL, FARGO, KIRK Sunset Mining Corp. Ltd. (N.P.L.) P.H. Sevensma	27/11/69	Geol, Geochem
62-20-133-30 105 K 5, 6	HILL, RUST Hecla Mining Co. Overland Exploration Services Ltd.	24/07/69	Gravity survey

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-23-133-30 105 K 6	JO, RAE Kim Exploration Ltd. Canadian Aero Mineral Surveys Ltd.	8/12/69	Gravity survey
62-24-133-15 105 K 6	ZAN, JET, TIM, AC, MX Mercury Explorations Ltd. Robt. E. Chaplin	2/07/69	Gravity survey, Geochem
62-19-133-03 105 K 6	MUR Spartan Exploration Ltd. J.S. Vincent	28/07/70	E.M., Mag, Geophys- ical
62-21-132-48 105 K 7	OK Giant Explorations Ltd. (N.P.L.) Giant Explorations Ltd. (N.P.L.)	19/12/69	Geophysical, Geochem
62-38-133-20 105 K 11	OWL Atlas Explorations Ltd. M.E. Coates, J.S. Brock	5/11/70	Geochem, Geophys- ical
62-58-132-10 105 K 16	SOLO Hudson Bay Expl & Devel. Co. R.T. McIntosh	28/11/69	Geological mapping, and sampling
62-06-133-15 105 K 3	LYN Kerr Addison Mines Ltd. Overland Exploration Services Ltd.	15/09/70	Gravity survey
62-01-137-54 115 I 4	POT Amax Exploration Inc. Tom Gledhill	15/09/70	I.P.
62-01-137-54 115 I 4	POT Amax Exploration Inc. G.M. DePaoli, W.M. Dolan	15/09/70	Mag survey
62-01-137-54 115 I 4	POT Amax Exploration Inc. W. Lodder, T.J.R. Godfrey	15/09/70	Geol, Geochem
62-27-137-25 115 I 5	JOHNNY, CASH Atlas Explorations Ltd. W.J. Roberts, D. Brabec	27/11/70	Geol, Geochem
62-27-137-05 115 I 5	FROG International Mine Services International Mine Services	17/09/70	Geochem assessment

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-30-138-00 115 I 5, 12 115 J 8, 9	APEX, PAT, KOOK Phelps Dodge Corp. of Canada R.G. Hilker	5/11/70	Geol, Geochem, Geophysical
62-23-137-30 115 I 6	KLAZAN Atlas Explorations Ltd. W.J. Roberts, D. Brabec	23/11/70	Geol, Geochem, Geophysical
62-15-136-54 62-15-137-15 115 I 2,3,6,7	BO, BRC Mead Resources Ltd. R.W. Phendler	11/12/70	Geol, Geochem
62-20-137-04 115 I 6	NS Mitsubishi Metal Mining Co. Ltd. Toru Kikuchi	23/06/70	Geol, Geochem
62-20-137-15 115 I 6	RAM, BOW Golden Gate Explorations Ltd. J.H. Montgomery, P.P. Nielsen	16/11/70	Geophysical, Geochem
62-22-136-42 115 I 7	BOY, MAN, MAC, DUN, WAR, WILL Archer, Cathro and Assoc. Ltd. A.R. Archer	15/03/71	Geol, Geochem
62-19-136-39 115 I 7	BF Mitsubishi Metal Mining Co. Ltd. Toru Kikuchi	23/06/70	Geol, Geochem
62-17-136-58 115 I 7	TINTA Coin Canyon Mines Ltd. G.C. Guttrath	25/08/70	Geochem soil sampling
62-20-136-25 115 I 8	ED E.O. Chisholm & W. Watmough E.O. Chisholm	23/12/70	Geochem, Geol
62-35-137-50 115 I 12	GB Alrae Engineering Ltd. Alrae Engineering Ltd.	8/10/70	Geochem sampling, Geol rec
62-38-137-55 115 I 12	HAYES Delta International Minerals Ltd. G.C. Guttrath	18/01/71	Geol, Geochem
62-38-137-55 115 I 12	HAYES Delta International Minerals Ltd. MacDonald Consultants Ltd.	4/05/70	Geochem analysis
62-38-138-02 115 J 9	DP Dawson Range Joint Venture Archer, Cathro & Assoc. Ltd.	24/04/70	Geochem sampling, Prelim Geol

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-35-138-25 115 J 9	DR, PATSY Dawson Range Joint Venture R.J. Cathro	29/07/70	Geol mapping, Geochem sampling
62-33-138-16 115 J 9	CROCK Dawson Range Joint Venture R.J. Cathro	12/06/70	Geol sampling
62-42-138-10 115 J 9	HAY Nicanex Mines Ltd. (N.P.L.) T.L. Sadlier-Brown, E.O. Chisholm	16/10/70	Geochem
62-40-138-25 115 J 9, 10	CO Newmont Mining Corp of Canada Ltd. W.M. Odian, C.P. Costin	25/05/70	Geophysical, Geochem
62-45-138-57 115 J 10	ZAPPA Dawson Range Joint Venture R.J. Cathro	25/08/70	Geochem sampling, Prelim Geol
62-44-138-59 115 J 10	MOTHERS Dawson Range Joint Venture A.C. Ogilvy	17/09/70	Bulldozer trenching, Geol & Mag surveys
62-40-138-52 115 J 10	CUB Cleveland Mining & Smelting G.S. Zimmer, G.G. Carlson	26/11/70	Geol, Geochem
62-41-139-00 115 J 10	GEP Glenlyon Mines Ltd. (N.P.L.) G.G. Carlson	28/08/70	Geol, Geochem
62-45-138-45 115 J 10, 15	PEG Glenlyon Mines Ltd. (N.P.L.) G.G. Carlson	28/08/70	Geol, Geochem
62-38-138-35 115 J 10	VIC Great Horn Mining Syndicate Inc. D.H. Waugh	8/10/70	Geochem assessment
62-40-138-52 115 J 10	CASH, GUN La Ronge Mining Ltd. (N.P.L.) G.G. Carlson	26/11/70	Geol, Geochem
62-39-138-54 115 J 10	BRAN New Davies Petroleums Ltd. Kopan Developments Ltd. G.L. Kirwan	24/09/70	Mag, Geochem



Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-40-138-37 115 J 10	STU, MIST Nickel Hill Mines Ltd. Pathfinder Resources Ltd. G. Trowsdale	10/08/70	Geochem water- courses sediment survey
62-40-138-32 115 J 10	AXE, HILL Montana Mines Ltd. (N.P.L.) B.C. Fulcher	18/01/71	Geol & Geochem evaluation
62-43-138-40 115 J 10	TOAD Prado Explorations Ltd. D.H. Waugh	2/09/70	Geochem assessment
62-45-138-55 115 J 10, 11, 14, 15	AZTEC, SQUAW, TLINGITS, NEW Trans Columbia Explorations Ltd. S.L. Sander	15/09/70	Geochem
62-45-139-00 115 J 10, 11, 14, 15	NEW Newmar Explorations Ltd. W.R. Newman	18/09/70	Geochem
62-42-139-05 115 J 11	NABOB Delta International Minerals Ltd. MacDonald Consultants Ltd.	19/10/70	Geological
62-43-139-00 115 J 11, 14, 15	HOLE Coin Canyon Mines Ltd. G.C. Gutrath	18/11/70	Geochem
62-43-139-00 115 J 11, 14, 15	HOLE Coin Canyon Mines Ltd. MacDonald Consultants Ltd.	18/11/70	Geochem
62-45-139-20 115 J 11, 14	PRINCESS, DUCHESS Borealis Exploration Ltd. F.C. Charlton	11/12/70	Geol, Geochem
62-45-139-45 115 J 12, 13	BID Atlas Explorations Ltd. K.M. Dawson	30/10/70	Geol mapping
62-45-139-45 115 J 12, 13	BID Atlas Explorations Ltd. K.M. Dawson	30/10/70	Geophysical
62-51-139-44 115 J 13	FBH Fawn Bay Development Co. Ltd. Hanna Gold Mines Ltd. P.H. Sevensma	9/12/70	Geochem
62-45-139-45 115 J 12, 13	BID Atlas Explorations Ltd. D. Brabec	30/10/70	Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-46-139-45 115 J 13	VINA Atlas Explorations Ltd. K.M. Dawson	5/10/70	Geol mapping
62-46-139-45 115 J 13	VINA Atlas Explorations Ltd. K.M. Dawson	5/10/70	Magnetic Geophysical survey
62-46-139-45 115 J 13	VINA Atlas Explorations Ltd D. Brabec	5/10/70	Geochem
62-47-139-00 115 J 14	ROYALE Atlas Explorations Ltd. K.M. Dawson	28/09/70	Geol mapping
62-47-139-00 115 J 14	ROYALE Atlas Explorations Ltd. D. Brabec	28/09/70	Geochem
62-49-139-28 115 J 14	TONI TIGER Dawson Range Joint Venture A.C. Ogilvy	17/09/70	Mapping, Sampling, Trenching
62-47-139-23 115 J 14	CROWN, KING, PRINCE, DUKE Rockland Mining Ltd. M.F. Cowan	23/11/70	Geol, Geochem
62-45-138-45 115 J 15	HOP Empire Mercury Corp. Ltd. D.M. Scott	26/10/70	Geochem
62-47-138-38 115 J 15	MOSS, MAR, RAM, ARM, MONTE, CARLO, FOLLY, FRED'S Marguerite Lakes Mines Ltd. R.W. Phendler, M.F. Cowan	16/10/70	Geol, Geochem
62-47-138-40 115 J 15	NEW Newmar Explorations Ltd. Richard E. Kucera	17/11/70	Photo geol
62-47.5-138-50 115 J 15	NEW Trans Columbia Explorations Ltd. Archer, Cathro & Assoc. Ltd.	25/08/70	Soil sampling
63-40-131-30 105 O 12	HORN Canadian Industrial Gas & Oil Ltd. H. Mogensen, P.G. Marshall	12/02/71	Geol
63-11-139-53 115 O 4	NICK Rainbow Lake Exploration Ltd. Eng. Ev. - J.P. Elwell Prop. Ex. - D.C. Findlay	8/01/71	Engineers evaluation, Property examination

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
63-00-140-15	LIBRA Marguerite Lake Mines Ltd. Metals, Petroleum & Hydraulic Resources Consulting Ltd.	12/03/71	Airborne Geophysical, Airborne Mag
115 N 1	R.K. Watson		
63-53-140-32	BEN, CEL, CCL, CON, JACK, LOU		Geochem soil survey,
63-58-140-54	Connaught Mines Ltd.		Geol
115 N 15	M.S. Cholach		
64-12-134-34	WON Cominco Ltd.	8/09/69	Geochem
106 D 2	Cominco Ltd.		
64-00 $\frac{1}{2}$ -135-38 $\frac{1}{2}$	JAY Altair Mining Corp. Ltd. (N.P.L.)	25/02/70	Geochem
106 D 4	MacDonald Cons. Ltd., E.D. Dodson		
64-02-135-35	ERIN Falconbridge Nickel Mines	6/05/70	Geol, Geochem
106 D 4	Robt. E. Van Tassell		
64-03-135-45	PAN Conrad Provencher	17/12/69	Geol evaluation
106 D 4	R.G. Hilker		
64-02-135-35	ERIN United Keno Hill Mines Ltd.	6/05/70	Geol, Geochem
106 D 4	Robt. E. Van Tassell		
64-10-135-17	JET H. Versluce	22/12/69	Geol evaluation
106 D 6	R.G. Hilker		
64-15-138-10	WALKER, JIM, PIKA Casca Enterprises	6/11/70	Geol
116 B 8	Egil Livgard		
64-34-140-23	SHELL CREEK Selwyn Explorations Ltd.	29/09/69	Engineering eval
116 C 9	Selwyn Explorations Ltd.		
65-05-134-15	KEY Bonnet Plume Mines Ltd.	12/12/69	Geol
106 E 1	Alrae Engineering Ltd.		

SELECTED BIBLIOGRAPHY

Aho, A.E.

- 1966: Exploration methods in Yukon with special reference to Anvil District; paper presented to Northern Resources Conference, Whitehorse, Y.T., March 1966; Western Miner, April 1966, pp. 127-148.

Alcock, F.J.

- 1930: Zinc and lead deposits of Canada; Geol. Surv. Can., Econ. Geol. Ser. 8.

Archer, A.R. and Main, C.A.

- 1970: A geochemical discovery of an unglaciated Arizona-type porphyry; paper presented to International Geochemical Symposium, Toronto, Ont., April, 1970.

Blusson, S.L.

- 1966: Frances Lake map-area; Geol. Surv. Can., Map 6-1966.

Bostock, H.S.

- 1934: The mining industry of Yukon, 1934; Geol. Surv. Can. Mem., 178.
- 1936a: Carmacks district, Yukon; Geol. Surv. Can., Mem. 189.
- 1936b: Mining industry of Yukon, 1935; Geol. Surv. Can., Mem. 193.
- 1937: Mining industry of Yukon, 1935; Geol. Surv. Can., Mem. 209.
- 1938: Mining industry of Yukon, 1937; Geol. Surv. Can., Mem. 218.
- 1941: Mining industry of Yukon, 1939 and 1940; Geol. Surv. Can., Mem. 234.
- 1942: Ogilvie map-area; Geol. Surv. Can., Map 711A, with descriptive notes.
- 1943: Preliminary map, Upper McQuesten River, Y.T.; Geol. Surv. Can., Paper 43-9.
- 1944: Preliminary map, Selwyn River, Yukon; Geol. Surv. Can., Paper 44-34.
- 1957: Yukon Territory, selected field reports of the Geological Survey of Canada, 1898 to 1933; Geol. Surv. Can., Mem 284.

Bostock, H.S. and Lees, E.J.

- 1938: Laberge map-area, Yukon; Geol. Surv. Can., Mem 217.

Boyle, R.W.

- 1956: Geology and geochemistry of silver-lead-zinc deposits of Keno Hill and Sourdough Hill, Yukon Territory; Geol. Surv. Can., Paper 55-30.



Boyle, R.W.

- 1957: The geology and geochemistry of the silver-lead-zinc deposits of Galena Hill, Yukon Territory; Geol. Surv. Can., Paper 57-1.
- 1965: Geology, geochemistry, and origin of the lead-zinc-silver deposits of the Keno Hill-Galena Hill area, Yukon Territory; Geol. Surv. Can., Bull. 111.
- 1968: The geochemistry of silver and its deposits; Geol. Surv. Can., Bull. 160.

Brown, C.J.

- 1961: The geology of the Flat River tungsten deposits, Canadian Tungsten Mining Corp. Ltd.; Bull. Can. Inst. Mining Met., vol. 54, pp. 510-513.

Cairnes, D.D.

- 1906: Explorations in a portion of the Yukon, south of Whitehorse; Geol. Surv. Can., Sum. Rept. 1906, pp. 22-30; also in Bostock (1957, pp. 209-217).
- 1908: Report on a portion of Conrad and Whitehorse mining districts, Yukon; Geol. Surv. Can., Publ. No. 982; also in Bostock (1957, pp. 245-275).
- 1909: Preliminary report on a portion of the Yukon Territory, west of the Lewes River and between the latitudes of Whitehorse and Tantalus; Geol. Surv. Can., Sum. Rept. 1908, pp. 26-32; also in Bostock (1957, pp. 276-283).
- 1910: Preliminary Memoir on the Lewes and Nordenskiöld Rivers Coal District, Yukon; Geol. Surv. Can., Mem. 5.
- 1912: Geology of a portion of the Yukon-Alaska boundary between Porcupine and Yukon rivers; Geol. Surv. Can., Sum Rept. 1912, pp. 9-11.
- 1915: Exploration in southwestern Yukon; Geol. Surv. Can., Sum. Rept. 1914, pp. 10-43; also in Bostock (1957, pp. 354-380).
- 1916: Investigation and mapping in Yukon Territory; Geol. Surv. Can., Sum. Rept. 1915, pp. 10-49; also in Bostock (1957, pp. 381-425).
- 1917: Investigations and mapping in Yukon Territory; Geol. Surv. Can., Sum Rept. 1916, 12-43.

Campbell, D.D.

- 1965: Review report on the geology and ore reserves of the Peso Silver Mines Limited properties, Yukon Territory; private report.
- 1966: Addendum to Campbell, 1965; private report.

Campbell, F.A.

- 1960: Nickel deposits in the Quill Creek and White River areas, Yukon; Bull. Can. Inst. Mining Met., vol 53, pp. 953-959.

Campbell, R.B. <sup>3</sup>

- 1967: Geology of Glenlyon map-area, Yukon Territory (105 L); Geol. Surv. Can., Mem 352.

Cathro, R.J.

- 1969: Tungsten in Yukon; paper presented to Third Northern Resources Conference, Whitehorse, Y.T., April 1969; Western Miner, April 1969, pp. 23-40.

Chisholm, E.O.

- 1957: Geophysical exploration of a lead-zinc deposit in Yukon Territory; methods and case histories in mining geophysics; Sixth Commonwealth Mining and Metallurgical Congress, pp. 269-277.

Christian, J.D.

- 1966: The development of the Clinton Creek asbestos deposit and its effect on the Yukon; paper presented to Northern Resources Conference, Whitehorse, Y.T., 1966; Western Miner, April 1966, pp. 216-220.

Cockfield, W.E.

- 1919: Mayo area, Yukon; Geol. Surv. Can., Sum Rept. 1919, part B.
- 1921: Sixtymile and Ladue Rivers area, Yukon; Geol. Surv. Can., Mem. 123.
- 1922: Silver-lead deposits of Davidson Mountains, Mayo district, Yukon; Geol. Surv. Can., Sum Rept. 1921, Pt. A, pp. 1A-6A; also in Bostock (1957, pp. 497-498).
- 1924: Upper Beaver River area, Mayo district, Yukon; Geol. Surv. Can., Sum. Rept. 1924A.
- 1928a: Silver-lead deposits of Fifteenmile Creek, Yukon Territory; Geol. Surv. Can., Sum. Rept. 1927, Pt. A, pp. 8A-10A; also in Bostock (1957, pp. 576-578).
- 1928b: Silver-lead deposits of Rude Creek, Yukon Territory; Geol. Surv. Can., Sum. Rept. 1927, Pt. A, pp. 11A-13A; also in Bostock (1957, pp. 576-578).

Cockfield, W.E. and Bell, A.H.

- 1926: Whitehorse district, Yukon; Geol. Surv. Can., Mem. 150.
- 1944: Whitehorse district, Yukon; Geol. Surv. Can., Paper 44-14.

Dominion Bureau of Statistics

- 1957: Canadian Mineral Statistics, 1886-1956; Reference paper No. 68.

Findlay, D.C.

- 1967: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1966; Geol. Surv. Can., Paper 67-40.
- 1969a: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1967; Geol. Surv. Can., Paper 68-68.
- 1969b: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1968; Geol. Surv. Can., Paper 69-55.

Gabrielse, H., Roddick, J.A. and Blusson, S.L.

- 1965: Flat River, Glacier Lake, and Wrigley Lake, District of Mackenzie and Yukon Territory; Geol. Surv. Can., Paper 64-52.

Gleeson, C.F.

- 1965a: Heavy metal content of stream and spring waters, Dublin Gulch, Yukon Territory; Geol. Surv. Can., Map 30-1964.
- 1965b: Heavy metal content of stream and spring sediments, Dublin Gulch, Yukon Territory; Geol. Surv. Can., Map 31-1964.
- 1966a: Lead content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 45-1965.
- 1966b: Silver content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 46-1965.
- 1966c: Arsenic content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 48-1965.
- 1967a: Antimony content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 49-1965.
- 1967b: Molybdenum content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 51-1965.

Green, L.H.

- 1965: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1964; Geol. Surv. Can., Paper 65-19.
- 1966: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1965; Geol. Surv. Can., Paper 66-31.

Green, L.H. and Godwin, C.I.

- 1963: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1962; Geol. Surv. Can., Paper 63-38.
- 1964: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1963; Geol. Surv. Can., Paper 64-36.

Green, L.H. and McTaggart, K.C.

- 1960: Structural studies in the Mayo District, Yukon Territory; Proc. Geol. Assoc. Can., vol. 12, pp. 119-134.

- Green, L.H. and Roddick, J.A.  
1961: Geology, Nahanni, Yukon Territory and District of Mackenzie; Geol. Surv. Can., Map 14-1961.  
1962: Dawson, Larsen Creek and Nash Creek map-areas, Yukon Territory; Geol. Surv. Can., Paper 62-7.
- Green, L.H., Roddick, J.A. and Blusson, S.L.  
1967: Geology, Nahanni, District of Mackenzie and Yukon Territory; Geol. Surv. Can., Map 8-1967.
- Hilker, R.G.  
1967: Copper mining on the Whitehorse Copper Belt, Yukon Territory; a paper presented at the 1967 Alaska Purchase Centennial Minerals Conference, College, Alaska, 1967.
- Hurst, M.E.  
1927: Arsenic-bearing deposits in Canada; Geol. Surv. Can., Econ. Geol. Ser. No. 4.
- Keele J.  
1904: Duncan Creek mining district, Stewart River area, Yukon; Geol. Surv. Can., Ann. Rept., vol. XVI, Pt. A, pp. 18-41.
- Kindle, E.D.  
1953: Dezadeash map-area, Yukon Territory; Geol. Surv. Can., Mem. 268.  
1964: Copper mining on the Whitehorse Copper Belt, Yukon Territory; Geol. Surv. Can., Paper 63-41.
- Lees, E.J.  
1936: Geology of Teslin-Quiet Lake area, Yukon; Geol. Surv. Can., Mem. 203.
- Little, H.W.  
1959: Tungsten deposits of Canada; Geol. Surv. Can., Econ. Geol. Ser. No. 17, p. 37.
- MacLean, T.A.  
1914: Lode mining in Yukon; an investigation of quartz deposits in the Klondike division; Canada Dept. Mines, Mines Branch, Publ. 222.
- McTaggart, K.C.  
1960: The geology of Keno and Galena Hills, Yukon Territory, (105 M); Geol. Surv. Can., Bull. 58.
- Muller, J.E.  
1958: Kluane Lake map-area, Yukon Territory; Geol. Surv. Can., Paper 58-9  
1967: Kluane Lake map-area, Yukon Territory; Geol. Surv. Can., Mem. 340.



Mulligan, R.

- 1963: Geology of the Teslin map-area, Yukon Territory; Geol. Surv. Can., Mem. 326.

Nandi, B.N., Speelman, E.L. and Montgomery, D.S.

- 1971: Study of two naturally carbonized coals; paper presented at the Seventh International Congress of Carboniferous Stratigraphy and Geology, Krefeld, West Germany, August 23-28, 1971.

Norris, D.K., Price, R.A. and Mountjoy, E.W.

- 1963: Northern Yukon Territory and northwestern District of Mackenzie; Geol. Surv. Can., Map 10-1963.

Phillips, M.P. and Godwin, C.I.

- 1970: Geology and rotary drilling at the Casino Silver Mines property, Western Miner, November 1970, pp. 43-49.

Poole, W.H.

- 1965: Mount Haldane and Dublin Gulch map-areas; Geol. Surv. Can., Paper 65-1, pp. 32-35.

Poole, W.H., Roddick, J.A. and Green, L.H.

- 1960: Geology, Wolf Lake, Yukon Territory; Geol. Surv. Can., Map 10-1960.

Roddick, J.A.

- 1967: Tintina Trench; J. Geol., vol. 75, pp. 23-33.

Roddick, J.A. and Green, L.H.

- 1961a: Tay River map-area, Yukon Territory; Geol. Surv. Can., Map 13-1961.

- 1961b: Sheldon Lake map-area, Yukon Territory; Geol. Surv. Can., Map 12-1961.

Schmidt, H.H.

- 1964: Standard sprinkler system strips frozen overburden; Eng. Mining J., vol. 165, No. 7, pp. 80-81.

Skinner, R.

- 1961: Mineral industry of Yukon Territory and southwestern District of Mackenzie, 1960; Geol. Surv. Can., Paper 61-23.

- 1962: Mineral industry of Yukon Territory and southwestern district of Mackenzie, 1961; Geol. Surv. Can., Paper 62-27.

Templeman-Kluit, D.J.

- 1968: Geologic setting of the Faro, Vangorda and Swim base metal deposits, Yukon Territory (105 K); in Report of Activities, pp. 43-52; Geol. Surv. Can., Paper 68-1, Pt. A.

Templeman-Kluit, D.J.

- 1969: Anvil-Vangorda district, Yukon (105 K); in Report of Activities, April to October 1968, pp. 38-39; Geol. Surv. Can., Paper 69-1, Pt. A.

Wheeler, J.O.

- 1961: Whitehorse map-area, Yukon Territory; Geol. Surv. Can., Mem. 312.

Wheeler, J.O., Green, L.H. and Roddick, J.A.

- 1960a: Quiet Lake map-area, Yukon Territory; Geol. Surv. Can., Map 7-1960.

- 1960b: Finlayson Lake map-area, Yukon Territory; Geol. Surv. Can., Map 8-1960.

White, L.G.

- 1963: The Canada Tungsten property, Flat River area, Northwest Territories; Bull. Can. Inst. Mining Met., vol 56, pp. 390-393.

INDEX

	Page
Abbott, G.	92
A Group	105
Acheson, J.M.	150
Acroll Oil and Gas Limited	47
Adams Creek	148
Add Group	105
Aird, C.A.	100
Aishihik Explorations Limited	63
Alaskite Creek	105
Alice Lake Mines Limited	10, 103
Allgold Creek	147
Altair Mining Corporation Limited	15
Amax Exploration Incorporated	76
Amax Tungsten Property	8
American Yukon Gold Company Limited	79
Amphitheatre Mountain	9, 153
Anglo Western Minerals Limited	23
Anvil Mine	2, 94
Anvil Mining Corporation Limited	94, 155
Anvil Range Area	93
Apex Creek Group	71
Archibald, R. and J.	144
Arctic Chief Property	110
Arctic Gold and Silver Mines Limited	117
Arctic Property	117
Arrow Inter-America Corporation	104
Asbestos Corporation	80
Atlas Explorations Limited	35, 38, 41, 75, 87, 93, 106, 125
Axe Group	61
Aztec Group	54
B Group	105
Ballarat Mines Limited	143
Barchen, H.	151
Bard Claim Group	13
Barduson Placers Limited	151
Barker, E.H.	150
Bear River Valley	9
Beaver Group	119
Bell Group	131
Berg, S.	144
Besner, H.	152
BF Group	91
Bid Group	38
Big Chief Property	110
Big Creek	75, 83, 87
Big Gold Creek	150
Big Salmon Range Area	119
Black Claims	139
Black Cub Property	111
Black River	138, 139

Bleiller, E.C.	151
Blusson, S.L.	8, 9
BO Group	76
Bob Group	16
Bolidens Mining Plant	118
Bonanza Creek	144, 145
Bonnet Plume River Area	27
Bonnet Plume River Mines Limited	27
Borealis Explorations Limited	42
Boswell Mountain	119
Boswell River Mines	7, 119, 137
Boulder Creek	134
Boutillier, H.C. and D.F.	148
Bow Group	82
Boy Group	92
Boyce, J.H.	18
Brameda Resources	57
Bran Group	58
Bratsberg, B.	147
BRC Group	86
Bremner, J. and I.C.	148
Brewster Lake Mines Limited	50
Brown, L.J.	27
Brown McDade Mines Limited	88
Bullion Creek	152
Bullion Mountain Mining Company Limited	19, 20
Burgelman, A. and N.	146
Burwash Creek	101, 152
Burwash Landing	8
Burwash Mining Company Limited	101, 152
Cab Claims	125
Caltor Syndicate	131
Cam Claims	104
Cameron, A.R.	9, 10
Canada Tungsten Mine	9
Canada Tungsten Mining Corporation Limited	8, 140
Canadian Creek	7, 47, 49, 55
Canadian Industrial Gas and Oil	29
Canadian Nickel Company Limited	127
Canex Aerial Exploration Limited	85, 112
Cantung Mine	8
Canyon City	98
Carcross Area	115
Caribou Claim	117
Caribou Lake	114
Carlo Group	51
Cash Group	59, 75
Casino Creek	7, 60
Casino Silver Mines Limited	7, 42, 48, 51, 55
Cassiar Mountains Area	137
Cassiar Asbestos Corporation Limited	30
Castonguay, J.P.	147



	Page
CCL Claims	32
Cement Creek	9
Cerro Mining Company of Canada Limited	8, 142
Charta Mines Limited	132
Chataway Exploration Company Limited	74
Chefkoi, M.	32
Chief Gulch	147
Chisholm, E.O.	104
Chudy, F.	149
Cinch Group	25
Cinnaman Claims	144
Clark Claims	19
Clearwater Creek Area	97
Cleveland Mining and Smelting Company Limited	60
Clinton Creek	2, 30
Clinton Mine	30
CO Group	64, 67
Coates Lake	8, 142
Coffee Creek Area	39, 40, 41, 42, 45, 46
Coin Canyon Mines Limited	58, 85
Colorado Corporation, The	119
Com Group	83
Cominco Limited	21, 83, 109, 126
Connaught Mines Limited	7, 32
Consolidated Brewis Minerals Limited	147
Consolidated Mines (Yukon) Limited	148
Consolidated Mining and Smelting Company Limited	19, 32, 134
Conwest Exploration Limited	80, 85
Cooper, J.C.	144
Coranex Limited	75, 87
Cork Claims	101
CPA Claims	132
Crock Group	68
Crockett, M.	145
Crown Group	39
Cub Group	60
Cyprus Mines Limited	94
Dan Group	137
Dago Hill	148
Datalaska Mines Limited	126
Davidson Range Area	19
Dawson City Area	7
Dawson Range Area	35
Dawson Range Joint Venture	40, 46, 67, 72, 92
Dezadeash Area	108
Dick, D.	70
Dickson, G.F.	88
Division Mountain	157
Djukastein, K.	150
Dolores Creek	27
Dominion Creek	143, 146
Doran, J.	152

	Page
Drury, W.L.	150
Dublin Gulch	18, 19, 150, 151
Duchess Group	42
Duke Group	43
Dynasty Explorations Limited	35, 38, 41, 94
Ed Group	105
Eighty Pup	146
Eldorado Creek	143, 147, 148
Elliott, L.	20, 21
Elsa Mine	12
Empire Mercury Corporation Limited	53
Erin Group	16
Esansee Explorations Limited	90
Eureka Creek	148
Falconbridge Nickel Mines Limited	11
Faro	94
Faucher, E.	149
Fawn Bay Development Company Limited	37
FBH Group	37
Fiddler Group	134
Fish Creek	119
Five Finger Mine	154
Flat River	8, 140
Folly Group	50
Fortymile Area	30
Fox Creek	125
Fox Group	121
Frances Lake	126
Fraser, W.E.	91
Freegold Mountain	78
Free Group	78
Fritz, W.H.	9, 10
Frog Group	73
Fromme, E.C.	45, 53, 65
Fry, A.T.	144
G Group	16
Galena Hill	11, 13, 14
Galena Hill Area	11
Garrett, R.G.	9, 10
GB Group	74
Gem Property	111
General Enterprises Limited	80
Geophoto Services Limited	101
Gep Group	15, 45
Glacier Creek	149
Glacier Creek Placers	149
Glenlyon Mines Limited	45, 53, 65
Goat Creek	9
Gold Bottom Creek	145, 152
Golden Gate Explorations Limited	82, 109
Golden Horn Group	98
Gold Run Creek	147, 148

	Page
Gold Run Placers Limited	147
Gosling, D.	42
Graham, J.M.	138
Granite Mountain	85
Gray, J.T.	9
Great Horn Mining Syndicate Incorporated	62
Great Plains Development Company of Canada Limited	40, 46
Green, W.B.	100
Greenly, E.	149
Grenier, M.G.	149
Grey Copper Hill	22
Grimard, L.	149
Guder, F.	80
Gui-Por Uranium Mines Limited	73
Gun Group	59
Haeckel Hill Area	113
Haggart Creek	18, 150, 151
Haines Junction	109
Half Breed Creek	153
Hanna Gold Mines Limited	37
Hanna Group	98
Hanson Lake	13
Haquebard, P.A.	9, 10
Hart Group	26
Hart River Mines Limited	7, 23
Hart River Property	23
Hay Group	69
Hayes Creek	69, 73, 74
Hayes Creek Property	69, 70
Hector Calumet Mine	12
Heitman, G.	80
Hess Mountains Area	29
Highet Creek	151
Hilker, R.G.	118, 132
Hill Group	61, 108
Hole Group	58
Home Creek	35, 38
Hop Group	53
Horn Group	29
Hot Group	134
Hudson Bay Exploration and Development Company Limited	8, 97, 100, 129, 130
Hudson Bay Mining and Smelting Company Limited	101, 129, 137
Hudson Bay Oil and Gas Company Limited	123
Hudson-Yukon Mining Company Limited	2, 8, 100
Huestis Property	89
Hunker Creek	146
Husky Mine	12
Hyland River Mines Limited	133
Imperial Mines and Metals Limited	110
Imperial Oil Enterprises Limited	101
Indian Mountain Metal Mines Limited	73

	Page
International Mine Services Limited	52, 114
Itsi Range Area	128, 130
Jack Pot Copper Mines Limited	108
Jay Group	15
Jet Group	22
Johnny Group	75
Johnson Creek	101
Johobo Property	10
Joy Group	128
K Group	105
Kaiser Resources Limited	80, 81
K and S Placers	147
Kangaroo Exploration Corporation Limited	96
Keno Claims	11, 144
King Group	43
Kinakin, M.	147
Kinakin, S.	152
Kirkham, R.V.	10
Klazan Group	87
Klondike Area	143
Kluane Lake Area	100, 152
Kopan Developments Limited	58
Kosuta, A.	146
Krysko, E.	135
Lamontagne, J.	147
La Ronge Mining Limited	59
Last Chance Creek	148
Legge, J.A.	42
Lerner, J.	32, 70
Lewes River Mines Limited	112
Lightning Creek	151
Lindsay Group	124
Lion Nickel Mines of Canada Limited	73
Little Blanche Creek	147
Little Chief Property	110
Little Dal Lake	8, 142
Livingstone Creek Area	119
Logan Mountains Area	133
Loon Lakes	119
Luck Group	134
Lulu Claims	118
Lunde, O.	145
Luscar Limited	158
Lutz, M.	138
Lynch, J.	150
Lynx Creek	15
Mac Group	122
Mackenzie Syndicate	140
MacMillan Pass Area	8, 9, 10, 129
MacMillan River Area	97
Maloney Creek	76
Mammoth Group	27



	Page
Mar Group	51
Marc Creek	7, 23
Marc Group	98
Marguerite Lake Mines Limited	51
Marsh Lake	114
Matson, T.	148
Matt Berry Mines Limited	126
Max Group	106, 137
May Group	90
McGregor Telephone and Power Construction	122
McKamey, R.L.	70, 82
McKay Hill	22
McNeil Lake	131
Mead Resources Limited	76, 86
Medby, O. and D.	149
Melnychuk, J.	138
Metallgesellschaft	127
Merrice Lake	91
Middle Chief Property	110
Mike Group	113
Miko Group	133
Miller Creek	149
Mink Group	119
Mist Group	63
Mitsubishi Metal Mining Company Limited	84, 91
MO Group	65
Mod Group	137
Molybdenum Corporation of America	40, 46
Montana Mines Limited	26, 61
Monte Group	51
Morn Group	134
Mosquito Creek	7, 32
Mosquito Creek Group	32
Mother Group	46
Mount Allan	9, 10
Mount Allan Tungsten Property	10
Mount Cockfield	64, 66
Mount Conrad	118
Mount Mye	96
Mount Nansen Area	88, 90
Mount Nansen Mines Limited	88
Mount Selous	97
MX Group	96
Nabob Group	44
N and G Group	16
Nassichuk, W.W.	10
Native Minerals Limited	135
New Cinch Uranium Limited	25
New Davies Petroleums Limited	58
New Group (Newmar Explorations)	48
New Group (Trans Columbia)	48, 49
New Imperial Mines Limited	2, 110

Newkirk Mining Corporation Limited	82
Newmont Mining Corporation	64, 124
Niamodlaoc Mountain Coal Prospect	153
Nicanex Mines Limited	69
Nickel Creek	100
Nickel Hill Mines Limited	63
Nippon Mining of Canada Limited	51
Nisling Range Area	7, 106
Nisutlin Plateau Area	138
No Cash Mine	12
Nom Claims	130
Norback, I.	146
Nord, C.	13
Nordex Exploration Limited	27, 48, 61, 62, 63
Norman H. Ursel Associates Limited	153, 154
Northwestern Exploration Limited	104, 140
Northwest Explorers Limited	123
NS Group	84
Nuk Group	98
NW Group	123
Oak Group	114
Onion Creek	106
Owl Group	93
Pan Group	18
Pathfinder Resources Limited	63
Patterson Range Area	21
Patton Hill	7
Peg Group	53
Pelly Plateau Area	128
Perkins, E.	138
Perret, F.	145
Peso Carmacks Gold Mines Limited	78, 89
Peter E. Walcott and Associates Limited	113
Phelps Dodge Corporation of Canada Limited	71, 105
Pickhandle Lake	10
Pine Group	114
Pot Claims	76
Prado Explorations Limited	52, 73
Premier Mines Limited	118
Pride of the Yukon Claim	117
Prince Group	43
Princess Group	42
Prohaska, S.	146
Prospector Airways Limited	18
Prospector Mountain	73
Provencher, C.	18
Ptarmigan Creek	9, 153
Pueblo	110
Quartz Creek	143, 147, 149
Quiet Lake	124
Quill Creek	10, 100
Raft Creek	105

	Page
Rain Group	50
Ram Group	51, 82
Ray Group	142
Red Ridge	8
Revenue Creek	80
Rex Property	109
Rhyolite Creek	106
Rio Plata Silver Mines Limited	18
Rio Tinto	55
Rockland Mining Limited	39, 43
Rockslide Creek	105
Rogue River	29
Rose Creek	94
Ross, L.M.	148
Royale Group	41
Ruby Range Area	104
Ruth Group	138
Sadie Ladue Mine	12
Sadlier-Brown, T.L.	104
Sailer, A.	149
Sangster, D.F.	10
Sawtooth Range	121, 123
Schink, E.	147
Schmidt, H.	143
Scurry Rainbow Oils Limited	135
Selwyn River	68
Seven Group	134
Shakwak Trench	102
Sheldon Lake	128
Silgold Mines Limited	85
Silver Christal Natural Gas and Mining Company	13
Silver City Mines Limited	7, 8, 10, 98
Silver Seven Exploration Limited	134
Silver Spring Mines Limited	14
Silver Titan Mines Limited	16
Simcox, J.	149
Sixtymile Area	7, 32, 149
Sixtymile Mining Company Limited	32
Sixtymile River	149
Slaggard Group	98
Slate Mountain	7, 121
Snowshoe Group	121
Sockeye Lake	10
Solo Claims	97
Somme Property	72
Somme Creek	72
Sourdough Hill	151
South MacMillan River Area	97
Spartan Explorations Limited	128
Spruce Creek Placers	150
Squaw Group	54
Star Claims	121

	Page
St. Cyr Range Area	131
Straus Explorations, Incorporated	40, 46
Stu Group	63
Sugarloaf Hill	117
Sugden Creek	9
Sulphur Creek	145
Sumitomo Metal Mining Company Limited	101, 110
Susan Group	134
Swan Group	134
Tagish Lake	7, 115
Talbot Project	105
Tantalus Butte Mine	154, 155
Tantalus Coal Project	156
Tanzilla Explorations Limited	78
Tatshenshini River	108
Taylor, F.	151
Teck Corporation	80
Templeman-Kluit, D.J.	8, 10
Teslin Exploration Limited	157
Teslin Lineament	92
Tetamagouche Creek	10, 101, 103
Thorpe, R.I.	10
Thorsen, H.	152
Thunder Gulch	151
Tincup Lake	104
Tinta Group	85
Tintina Fault	139
Tlingits Group	54
Toad Group	52
Tombstone Region	9
Tom Property	8, 129
Toni Tiger Group	40
Topazios Mining and Exploration Company Limited	105
Trans Columbia Explorations Limited	54
Trans Western Investments	113
Trans Yukon Explorations Limited	124
Treadwell Yukon Corporation Limited	11
Troberg, R.E.	144
Trojan Consolidated Mines Limited	40, 46
United Keno Hill Mines Limited	11, 15, 16, 64
Valerie Group	110
Vangorda Creek	95
Venture Mining Limited	23
Venus Mines Limited	7, 8, 115
Versluce, H.	22
Vic Group	62
Vina Group	35
War Eagle Property	111
Webber Property	89
Wellgreen	2, 100
Wernecke Mountains Area	23
Wheeler, J.M.	90



	Page
Whitehead, E.	80
Whitehorse	110
Whitehorse Coal Area	158
Whitehorse Copper Belt	110, 112
White River	7, 8, 10, 98
White River Property	98
Williams Creek	92
Williams Creek Property	92
Wilson, F.M.	150
Won Group	21
Wye Lake Resources Limited	138
Yukon Consolidated Gold Corporation Limited	55, 143, 146, 147
Yukon Revenue	79, 81
Yukon Revenue Mines Limited	79
Yukon Tungsten Corporation Limited	134
Zan Group	96
Zappa Group	46
Zeuman, G.	138













Indian and  
Northern Affairs

Affaires Indiennes  
et du Nord

North of 60

CA1  
IA60  
-M33

Mineral Industry Report  
1971 and 1972  
Volume 1 of 3  
Yukon Territory  
EGS 1975-6

D. B. Craig  
M. W. Milner





Canada

Dept. of Indian Affairs & Northern Development

North of 60

MINERAL INDUSTRY REPORT

1971 and 1972

Volume 1 of 3

Yukon Territory

by

D.B. Craig  
M.W. Milner



Crown Copyrights reserved

Available by mail from

Information Canada, Ottawa, K1A 0S9

and at the following

Information Canada bookshops:

Halifax

1683 Barrington Street

Montreal

640 St. Catherine Street West

Ottawa

171 Slater Street

Toronto

221 Yonge Street

Winnipeg

393 Portage Avenue

Vancouver

800 Granville Street

or through your bookseller

Price \$3.00 Catalogue No.: R71-9/1972-1

Price subject to change without notice

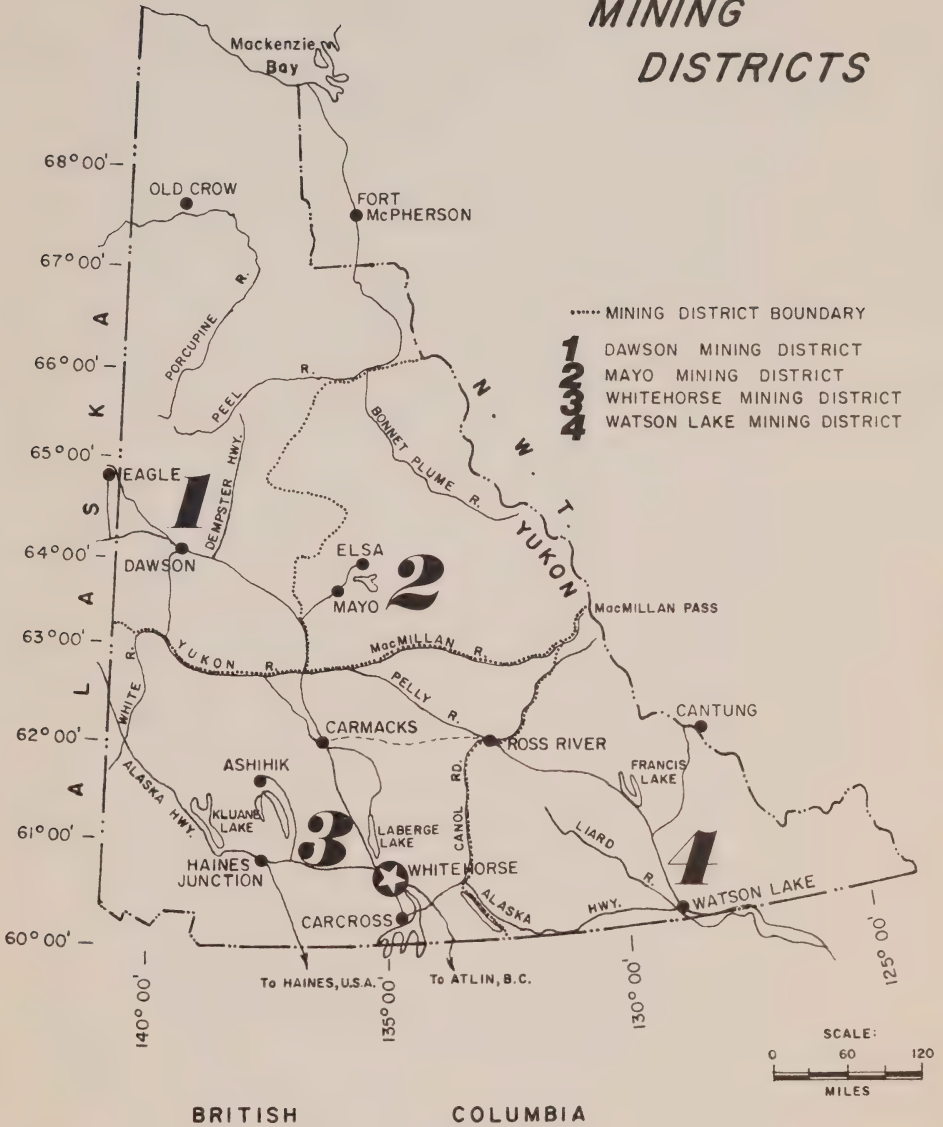
Information Canada

Ottawa, 1975

IAND Publication No.: QS-8024-000-EE-A1



# YUKON TERRITORY MINING DISTRICTS



### ACKNOWLEDGEMENT

We wish to thank Dr. E.D. Kindle for his assistance  
in editing this report.

CONTENTS

	Page
Abstract.....	iii
Introduction.....	1
Transportation facilities.....	1
Yukon mineral production.....	2
Work by the Geological Survey of Canada in Yukon	
Territory during 1971 and 1972.....	7
Lode exploration in Yukon.....	8
Lode mining and exploration.....	9
Dawson Mining District.....	9
Clear Creek.....	9
Scroggie Creek.....	11
Ladue River.....	12
Klondike.....	13
Clinton Creek.....	14
Fifteenmile River area.....	15
Mayo Mining District.....	17
Hess Mountains area.....	17
McQuesten River.....	20
Hanson Lake.....	22
Scheelite Dome.....	23
Keno City.....	25
Galena Hill.....	27
Davidson Range.....	30
Wernecke Mountains.....	32
South Macmillan.....	33
Whitehorse Mining District.....	36
White River.....	36
Donjek Range.....	41
Whitehorse area.....	43
Carcross area.....	54
Lake Laberge.....	56
Dawson Range.....	58
Nisling Range.....	82
Anvil Range.....	89
Pelly Mountains.....	103
South Macmillan.....	105
Watson Lake Mining District.....	106
Cassiar Mountains.....	106
Wolf Lake.....	112
Pelly Mountains.....	114
Logan Mountains.....	117
Sheldon Lake.....	123
Summit Lake.....	124
Coal mining and exploration.....	125
Whitehorse Mining District.....	125
Placer mining.....	130
Dawson Mining District.....	130
Klondike area.....	130
Sixtymile area.....	135
Mayo Mining District.....	137
Whitehorse Mining District.....	138
Kluane area.....	138
Appendix A.....	140
Reports accepted for assessment credit, 1971 and 1972.....	140



	Page
Selected Bibliography.....	151
Index.....	160
Table	
I Representative transportation costs for Yukon Territory.....	3
II Mineral production of Yukon Territory.....	5
III Mineral claims recorded, Yukon Territory.....	6
Maps	
Whitehorse Copper Belt.....	50
Klondike area, placer locations.....	129
Sixtymile area, placer locations.....	134
Mayo-McQuesten area, placer locations.....	136

ABSTRACT

This report is a summary of activity by the mineral industry in the Yukon Territory during 1971 and 1972.

The value of Yukon mineral production increased from \$80 million in 1970 to \$93 million in 1971. This increase reflects largely increased output of lead (up \$6 million) and zinc (up \$14 million) from Anvil Mine which more than offset declines in asbestos (\$3 million) from Clinton and copper production (\$6 million) due to temporary closure of New Imperial Mines operations at Whitehorse.

The increase in value of mineral output in 1972 to \$106 million reflects increase in value of lead and zinc from Anvil Mine and production of nickel concentrates from the Wellgreen Mine of Hudson-Yukon Mines at Quill Creek.

Exploration activity was down slightly from the previous two years.

Placer gold production continued to decline with several operators who formerly worked claims full time, either not operating or mining only part time.

Coal exploration was also less than the preceding years, with most of the work being done in the vicinity of Carmacks and Braeburn.



## INTRODUCTION

This report is a review of the Yukon mineral industry for 1971 and 1972 by the Northern Economic Development Branch of the Department of Indian Affairs and Northern Development. Earlier geological records are available in the Annual and Summary Reports of the Geological Survey of Canada (1898 to 1933). Many of these earlier reports have been annotated and republished in Geological Survey of Canada Memoir 284. Mineral industry records for the period 1934 to 1940 are summarized in Geological Survey of Canada Memoirs by Bostock (1935, 1936b, 1937, 1938, 1939 and 1941). Records from 1960 to 1968 are presented in an annual series of Geological Survey of Canada papers entitled The Mineral Industry of Yukon Territory and Southwestern District of Mackenzie. Information for 1969 and 1970 is contained in Mineral Industry Report of Indian Affairs and Northern Development.

The information was obtained from property visits, communication with company personnel, technical reports of companies, trade journals and reports of the Mining Recorders of the Dawson, Mayo, Whitehorse and Watson Lake Mining Districts.

The writers acknowledge with thanks the cooperation of the companies and individuals of the mineral industry who provided information. The cooperation of members of government agencies has also been most helpful.

## TRANSPORTATION FACILITIES

Whitehorse (population roughly 11,000 in 1972), the capital of Yukon Territory and main distribution centre is serviced by ship and rail via Skagway, Alaska and by truck, bus and air from Vancouver, British Columbia and Edmonton, Alberta. A gravel highway system links the principal communities of Whitehorse, Watson Lake, Carmacks, Dawson City, Faro, Ross River and Haines Junction as well as points in between with regular bus and truck freight service available. Minor roads provide access to mining properties, ranches and timber leases. A few boats are available for charter and some fuels and heavy equipment are moved on the Yukon River. Fixed wing aircraft and helicopters are available for charter at Whitehorse, Watson Lake and Mayo throughout the year and at several other designated points during the summer.



YUKON MINERAL PRODUCTION

Current and cumulative values of Yukon mineral production are summarized in Table II. Comparison with the 1970 figures shows an increase of total production from \$80 million to \$93 million in 1971, reflecting increased value of lead (up \$6 million) and zinc (\$14 million) from Anvil Mine. Asbestos production declined moderately and reduced copper output reflects the temporary closure of New Imperial Mine at Whitehorse. The 1972 production shows a moderate increase in value of lead, zinc and asbestos as well as sales of nickel and platinum from Hudson-Yukon Mine.

TABLE I

REPRESENTATIVE TRANSPORTATION COSTS FOR YUKON TERRITORY 1972

Rail and Boat (Container ship every week). Ore and concentrates:  
Whitehorse to North Vancouver.

Commodity rate on 30,000 lb. car loads

Lead, zinc or copper concentrates .....\$16. per ton  
Asbestos fibre.....\$17. per ton

Mining equipment and related supplies - North Vancouver to  
Whitehorse:

Commodity rate (dollars per 100 lb.)

	<u>10,000</u>	<u>24,000</u>	<u>36,000</u>
Machinery .....	3.35	2.95	2.90
Petroleum products (packaged)..... (gasolines and fuel oils are quoted f.o.b. Whitehorse)	3.50		
Drilling mud .....	3.20	2.95	2.85

Back haul rates on the above up to 12 months is 60 per cent.

Trucks

Basic rates - Whitehorse from Edmonton and Vancouver

	<u>100 lb</u>	<u>5,000 lb</u>	<u>10,000 lb</u>
From Edmonton (dollars per 100 lb)	6.82	5.62	4.97
From Vancouver(dollars per 100 lb)	11.35	6.33	5.74

Bus (3 times per week)

	<u>-Pounds-</u>			
Express rates - Whitehorse	<u>0-2</u>	<u>2-10</u>	<u>40-50</u>	<u>90-100</u>
From Edmonton	\$3.65	\$3.65	\$8.95	\$15.85
From Vancouver	3.40	3.65	9.95	18.00

Air (Edmonton - daily, Vancouver - twice daily except one flight  
Sunday)

Air Express and air freight - to Whitehorse from Vancouver and  
Edmonton.

	<u>Min. 1-10 lb.</u>	<u>21-35 lb</u>	<u>100 lb.</u>
Air Express from Edmonton	\$8.00	\$13.50	\$38.75
	<u>Min 1- 9 lb.</u>	<u>21-25 lb</u>	<u>100 lb.</u>
Air Express from Vancouver	\$8.00	\$14.25	\$43.50

Air Freight from Edmonton	.22/lb (Min \$11.50)	100 .22/lb	200 .21/lb	500 .20/lb
From Vancouver	.22/lb (Min \$ 6.00)	.22/lb	.20	.19

CHARTER AIRCRAFT

<u>Type</u>	<u>Rate/Hour</u>	<u>Rate/Mile</u>
Fixed Wing		
CESSNA 150	\$30.00	\$ 0.30
172	55.00	0.45
180	70.00	0.60
185 (wheels)	80.00	0.60
185 (floats)	80.00	0.65
BEAVER	\$ 90.00	\$ 0.90
AZTEC 250	140.00	.70
OTTER	140.00	1.30
TWIN OTTER	260.00	1.60
Helicopters	<u>Rate/Hour</u> when carrier supplies fuel	<u>Rate/Hour</u> when charterer supplies fuel
BELL 47G-3B-1	\$160.00	\$150.00
BELL 206A (Jet Ranger)	250.00	240.00
HILLER 12E	165.00	155.00

TABLE II  
Mineral Production of Yukon Territory

Product	1970	1971	1972	Cumulative Totals
<u>Gold</u>				
fine oz.	20,400	14,473	4,079	
\$	746,000	511,534	234,983	268,611,319
<u>Silver</u>				
fine oz.	4,265,000	5,747,703	4,988,967	
\$	7,890,250	8,966,417	8,331,575	163,425,172
<u>Lead</u>				
lb.	137,475,000	217,336,142	222,921,742	
\$	21,748,500	29,340,379	34,392,366	146,034,247
<u>Zinc</u>				
lb.	155,975,600	233,134,144	237,225,560	
\$	24,846,900	39,003,342	45,241,287	148,612,538
<u>Cadmium</u>				
lb.	63,000	59,100	32,711	
\$	236,900	114,654	82,759	273,889
<u>Copper</u>				
lb.	15,500,000	5,132,000	1,748,093	
\$	9,000,800	2,709,696	890,286	31,855,124
<u>Tungsten</u>				
lb.				
\$				27,499
<u>Nickel</u>				
lb.			2,814,621	
\$			3,996,762	3,996,762
<u>Platinum</u>				
fine oz.			3,625	
\$			325,573	327,126
<u>Asbestos</u>				
tons	108,000	91,969	101,888	
\$	15,173,000	12,374,380	13,006,476	61,568,878
<u>Coal</u>				
tons	16,700	21,026	18,435	
\$	167,000	210,250	184,350	3,178,912
Totals	79,642,350	93,230,662	106,686,417	833,911,466



TABLE III  
Mineral Claims Recorded, Yukon Territory

Mining District	1969	1970	1971	1972
Dawson	846	847	1,054	669
Mayo	1,466	768	1,026	1,784
Watson Lake	996	1,294	1,245	2,740
Whitehorse	12,927	8,609	4,380	1,922
Totals	11,519	7,705	6,845	9,383

WORK BY THE GEOLOGICAL SURVEY OF CANADA  
IN YUKON TERRITORY DURING 1971 and 1972

During 1971 and 1972 D. J. Tempelman-Kluit conducted Operation Snag-Yukon, the reconnaissance mapping of Aishihik Lake (115 H), Snag (115 J, 115 K E 1/2) and the western part of Stewart River (115 N E 1/2) map-areas. On the basis of this work improved sub-divisions and correlations are suggested for the Yukon Group and for some of the volcanic and intrusive units which will have applications in adjacent map-areas.

R.G. Garret completed the sampling phase of a regional geo-chemical study of plutonic rocks in eastern Yukon and western Mackenzie District, collecting 934 samples of acid plutonic rocks and the enclosing sediments.

O.R. Eckstrand as part of a study of Canadian nickel deposits examined and sampled the Canalask and Wellgreen properties. Both represent sulphide injection into wall rocks adjacent to ultramafic intrusions with some sulphide in the base of the ultramafic at Wellgreen as well.

L.D. Dyke mapped the White Mountain massif (at 1:50,000), a fault-bounded domal uplift in the northern Richardson Mountains, as the field component of a structural analysis of such features.

In 1972 S.L. Blusson examined specific parts of Nidderly Lake (105 O), Lansing (105 N) and Nadaleen River (106 C) map-areas in completion of Operation Stewart, most of the fieldwork for this having been done in 1969 and 1970. The Amax MacMillan Pass tungsten deposit is recognized as being in Ordovician calcareous shale.

J.A. Hunter did hammer seismic refraction studies on the Yukon Arctic coast as part of surficial mapping by the Terrain Sciences Division. Permafrost velocities were observed in several types of surficial materials and correlated with drill hole information.

The surficial mapping was done by V.N. Rampton who expanded on the surficial coastal stratigraphy established earlier.

B.C. MacDonald and C.P. Lewis studied the sedimentary and geomorphic processes of the rivers and coast proper of the Yukon Coastal Plain.

### LODE EXPLORATION IN YUKON

Exploration activity in Yukon Territory during 1971 and 1972 was down moderately from preceding years. This reflects partly the decrease in exploration funds available and partly decreased incentive due to depressed metal prices.

Table III indicates the claims recorded during the period, the reduced number is consistent with the lack of major staking rushes during this time, in contrast to the staking activity in the Dawson Range in 1969-1970 and in the Anvil Range in 1965-1966. During 1969, 60 per cent of the claims recorded in the Territory for that year were in the Dawson Range.

In the Whitehorse Mining District Dawson Range Joint Venture explored the Williams Creek copper deposit, 20 miles north-northwest of Carmacks, with major trenching and diamond drilling programs, some 19,000 feet of drilling being done on copper-bearing gneissic zones in granodiorite.

Silver Standard Mines Limited/American Smelting and Refining Company explored the Minto prospect 45 miles northwest of Carmacks, doing 9,700 feet of diamond drilling during the two years as well as bulldozer trenching and construction of a winter access road and construction of an airstrip 2,300 feet long. Here also copper is in gneissic zones enclosed by unfoliated granitic rocks of fairly similar composition.

United Keno Exploration, on DEF claims immediately north of the Silver Standard property, continued the surface work started in 1971, including bulldozer trenching of a mineralized zone.

**Area .** Exploration Corporation explored the Mt. Nansen property 45 miles west of Carmacks by conducting drilling programs in addition to surface work, to test the porphyry copper-molybdenum possibilities of the area.

Anvil Mining Corporation did exploration near the mine and in the immediate Swim Lakes area, using both diamond and overburden drilling in the search for further zinc-lead deposits.

In the Mayo Mining District Amax Exploration resumed work on the Macmillan Pass tungsten deposit, completing 8,000 feet of drilling in 1971 and 20,000 feet in 1972. The company later announced that they had outlined some 30 million tons of scheelite-bearing skarn having a grade of 0.9 per cent W03.

Dynasty Explorations staked and did test pitting and diamond drilling on the Plata property in the Hess Mountains. Silver-rich galena-sphalerite-tetrahedrite veins occur in argillaceous sediments.

In the Watson Lake District during 1972, Canex Placer staked galena- and sphalerite-bearing horizons in the Road River Formation in the Selwyn Mountains along the Yukon-Mackenzie border near Summit Lake and began exploration of the properties. A staking rush followed during the winter of 1972-73.

LODE MINING AND EXPLORATION

DAWSON MINING DISTRICT

CLEAR CREEK

NOP CLAIMS

United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory

Tungsten  
115 P 14  
(63°50'N, 137°04'W)

References: Bostock (1948); Garrett (1971)

Claims: NOP 1-10

Location and Access:

The property is situated on West Ridge, at the headwaters of Left Clear Creek, about 20 miles north of the Stewart Crossing-Dawson Road. An old road extending up to the placer workings on Clear Creek, three miles from the property, is presently unsuitable for traffic. Current access is by helicopter.

History:

Near the property, eight claims were staked by T. Gergich in 1962. Alluvial gravels were worked up to 1964 for placer gold. In 1969, Archer, Cathro and Associates did chip sampling and geological mapping on and near the claim area. The release of Garrett's preliminary report prompted the staking of the NOP claims in March of 1971.

Description:

Yukon Group quartz-mica schists and quartzite are cut by acidic to basic stocks and dykes, from Paleozoic to Tertiary in age. The area is heavily covered by overburden. The meta-sediments, light brown and fine grained, display quartz veins, up to one foot wide, with no obvious scheelite. The intrusives consist of porphyritic monzonite and quartz monzonite in which are quartz veins carrying minor scheelite. Minor scheelite is disseminated in the porphyritic rock near the vein margins.

Current Work and Results:

In August 1971, UKHM geologically mapped the claims on the basis of sparse (1%) outcrop and rock fragment distribution. Soil samples, 90 in all, were taken on claim NOP 10 at 100 foot intervals on lines 300 feet apart. Samples were analysed by colorimetric methods and data plotted and contoured. An overall northwesterly trending tungsten anomaly with a secondary northerly trend is recognized. A weak molybdenum anomaly shows a slight correlation with the overall tungsten pattern.

LUGDUSH GROUP  
Chevron Standard Oil Company Limited  
225 Bush Street  
San Francisco, California

Tungsten  
115 P 15  
(63°45'N, 136°57'W)

Claims: LUGDUSH 1-16

Location and Access:

The claims are on the headwaters of Vancouver Creek. Chevron conducted a three day investigation from a base camp on the Clear Creek road, using a helicopter from Mayo.

History:

The claims were staked in June of 1971 to cover a tungsten stream sediment anomaly recognized by Archer, Cathro and Associates in 1969.

Description:

In unglaciated terrain above timberline, rock fragments in the soil indicate that bedrock is porphyritic granite, in contact, to the west of the claims, with mica schist and phyllite. A small granodiorite stock occurs to the southeast. Diopside skarn float found over the central part of the claim block contains scheelite and pyrrhotite with minor arsenopyrite and chalcopyrite.

Current Work and Results:

A soil geochemistry and rock fragment study in July 1972, indicated two skarn zones, each greater than 1,500 feet in length, from which selected samples assayed up to one per cent  $WO_3$ .



## SCROGGIE CREEK

SCROGGIE CREEK C CLAIMS  
Silver Standard Mines Limited  
806 - 602 West Hastings Street  
Vancouver 2, British Columbia.

Molybdenum, Copper  
115 J 15  
(62°56'N, 138°31'W)

Reference: Cairnes (1917).

Claims: C 1-4, 33-36

Location and Access:

The claims are situated on the southwest trending ridge between Scroggie Creek and the north bank tributaries to the Yukon River near Isaac Creek. Access during exploration was by boat from Minto on the Yukon River to the mouth of Isaac Creek and then by helicopter six miles north to the property.

History:

The creeks to the north of the divide were worked for gold in the early decades of this century. The C claims were staked by Silver Standard Mines Limited in 1971.

Description:

The area, as described by Cairnes, consists of mica gneiss and schist with granite, pegmatite and rare basic intrusions. Reconnaissance mapping in 1971 revealed medium-grained quartz feldspar porphyry containing finely disseminated chalcopyrite and pyrite. A 400-foot wide, quartz-rich breccia zone contains molybdenite as fine disseminations and fracture coatings. Biotite schist and rhyolite occur to the north of the claim group.

Current Work and Results:

During 1971 soil sampling and geological mapping was done on the claims, samples being taken at 200 foot intervals along east-west lines 400 feet apart. A weak copper anomaly roughly 3,000 feet by 1,200 feet and a roughly coincident molybdenum anomaly some 2,400 feet by 800 feet were recognized. The extension of the sampling grid in 1972 to 4,000 by 4,000 feet extended the molybdenum anomaly a further 600 feet to the south and closed it. The copper anomaly was not changed significantly. 43,000 line feet of AVLF-EM survey was completed over the grid but response was weak and data did not show a correlation with either mineralization or geology.

## LADUE RIVER

LAD  
Occidental Minerals Corporation  
of Canada  
801, 161 Eglinton Avenue East  
Toronto 12, Ontario

Copper, Zinc  
115 N 7  
(63°27.5'N, 140°52'W)

Reference: Tempelman-Kluit (1973, G.S.C. Open File 161).

Claims: LAD 1-36

Location and Access:

The claims straddle the Ladue River, about 14 miles upstream from the confluence with the White River. Access is by helicopter.

History:

The 36 claim group was staked on the basis of a 1970 regional geochemical silt survey.

Description:

Precambrian and Mesozoic sedimentary rocks are cut by Tertiary intrusives and two generations of volcanics.

The Nasina Group consists of chlorite-sericite schist and quartz-sericite schist with minor quartzite, sericite schist and banded quartzite. Mesozoic units are schistose quartzite, pebble conglomerate and minor shale and greywacke. These younger strata rest with angular unconformity on the older metamorphic complex. The intrusive rocks consist of a quartz monzonite dyke and quartz porphyry plugs, the latter found at the unconformity.

The older volcanic suite is represented by andesitic agglomerate with minor andesitic porphyry, flat-lying and unconformable on the Mesozoic rocks. Late Tertiary rhyolite and trachyte porphyries form the younger volcanic suite.

Pyrite and minor pyrrhotite occur in all of the rock units except the acidic volcanics. A pronounced alteration zone with gossan occurs near the monzonite.

Current Work and Results:

1971 work consisted of a soil geochemical survey and the examination of the alteration zone and gossan.

## KLONDIKE

DAW, HUN, SON, NUG, SUL,  
ROD, PUP, and JEN GROUPS  
Sullivan and Rodgers  
Vancouver, British Columbia

Copper, Lead, Silver  
Gold, molybdenum,  
arsenic  
115 0 14, 15  
116 B 3  
(64°00'N. 139°00'W)

References: Bostock (1937); Green (1972).

Claims: DAW 1-23, HUN 1-16, SON 1-48, NUG 1-28, SUL 1-32,  
ROD 1-22, PUP 1-71, JEN 1-64, a total of 304

### Location and Access:

This series of eight, non-contiguous claim groups is in the Klondike goldfield, south of Dawson City. Roads provide convenient vehicle access from the Klondike Highway. The most distant claims are roughly 20 miles from Dawson City. Work on the SON and PUP groups was supported by helicopters based in Dawson City during the summer.

### History:

The claims were staked in the spring of 1972 over aeromagnetic anomalies. In some cases, hardrock mineral occurrences were also known. The PUP group surrounds the TOM claim group on which old trenching and two small shafts explored a galena-chalcopyrite showing.

### Description:

The area is underlain by rocks mapped by Bostock (Map 711A, 1937) and Green (Map 1284A, 1972) as Klondike Schist. These rocks are quartz-muscovite-chlorite schist and schistose quartzite with minor quartz-biotite gneiss.

On the PUP 33 claim, at the heads of Soda and Independence creeks, a fine-grained quartz porphyry was found to contain two to three per cent pyrite and minor malachite. The showing on the TOM claims is a two-inch galena-chalcopyrite bearing quartz vein in a schist host rock.

On the NUG claims, on Bonanza Creek, two miles from the mouth, a coarse grained porphyry contains disseminated pyrite and narrow quartz veins contain up to 50 per cent massive pyrite.

### Current Work and Results:

During 1972 soil samples were taken at 500 foot intervals along claim lines 3,000 feet apart and, where the widely spaced samples were anomalous, at 100 foot intervals on lines 500 feet apart. All samples were analysed for copper, lead and silver and some for gold, molybdenum and arsenic. Although no attractive targets were found, this reconnaissance geochemical method did define small anomalies and is regarded as an effective prospecting tool over most of the area.

## CLINTON CREEK

### CLINTON MINE

Cassiar Asbestos Corporation Limited  
85 Richmond Street  
Toronto, Ontario

### Asbestos

116 C 7  
(64°27'N, 140°42'W)

References: Green and Roddick (1962); Green and Godwin (1964, pp. 19-21); Green (1965, pp. 25-27; 1966, pp. 25-26); Christian (1966); Findlay (1967, pp. 27-29; 1969a, pp. 31-32; 1969b, pp. 18-20); Craig and Laporte (1972, pp. 30-31).

### Location and Access:

The open pit is five miles up Clinton Creek which is a left bank tributary to the Fortymile River, three miles from its confluence with the Yukon River. The mine and townsite are connected by a 60-mile all-weather road to the Yukon River at Dawson City.

### History:

Staked in 1957, explored in 1957 and 1958 and later from 1963 on, the mine has been producing since October 1967.

### Description:

The orebody is a southwesterly plunging, northwesterly dipping lens in the hanging wall of a serpentinite mass. It is separated from conformable, black, limy argillites by a 100 foot zone of rusty weathering quartz-carbonate rock. There is sheared or fish scale serpentinite in the footwall.

### Current Work and Results:

Contract stripping and development continued over the southwest portion of the Porcupine ore body in 1972. Development drilling was also done on the Snowshoe and Bear Creek fibre zones, and exploration drilling on Wolverine Hill. Drilling for ore control was done in the pit.

CZ fibre production was started in 1972. Recovery of this short fibre, from what was formerly discarded as waste, resulted in a higher rate of recovery.

Testing for new uses for the company's products included surfacing short sections of the Klondike Highway, near the Whitehorse Junction, with experimental asphalt-asbestos mixtures.

The floor of the pit was at the 1,380-foot level in early 1972, 330 feet below the initial 1,710 foot bench at which mining started in 1967.

Operating Summary:

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Mined (tons)	1,012,937	1,480,522	1,733,405	1,788,976
Milled (tons)	952,889	1,335,087	1,447,863	1,267,178
Daily Average	3,048	4,049	4,640	4,440
Waste Removal (tons)	3,410,710	4,536,738	11,145,856	14,309,837
Production (tons fibre)	87,820	104,386	92,962	102,347
Grade (% mill recovery)	9.22	7.82	6.42	8.08
Sales	\$16.3 million	\$20.8 million	\$18.1 million	\$18.7 million

Rock rejection varied from 5-35% and this together with storage and stockpiling accounts for differences between tonnages mined and milled.

FIFTEENMILE RIVER AREA

PLATA FIFTEENMILE RIVER (Silver City Property) L. Patnode Whitehorse, Yukon Territory	Silver, Lead, Zinc 116 B 5 (64°18'N, 139°52'W)
--	--

References: Cockfield (1928, pp. 8A-10A); Green and Godwin (1963, p. 20; 1964, pp. 18-19); Green (1965, pp. 23-25; 1966, pp. 23-24); Green (1972, pp. 138-139).

Claims: PLATA 1-4

Location and Access:

The property is 22 miles northwest of Dawson City, on the north side of the Yukon River, 2-1/2 miles downstream from the mouth of the Fifteenmile River. Access is possible by river-boat.

History:

The property has been explored at various times since 1900. Cockfield reports that five tons of argentiferous galena float were shipped prior to 1928. From 1962 the prospect was known as the Silver City Property, optioned from owner J. Risco of Dawson City and actively explored from 1962 to 1965 by Silver City Mines Limited.



In 1962, an adit was started 300 feet above the river and driven north, into talus, being completed in 1963 at 276 feet. During 1963, 1964 and 1965, cuts were made in the talus mantle by monitor, some 75,000 cubic yards in all being moved. The hydraulic work in 1964 exposed an adit driven by Risco in 1929 and two still older adits. During 1965 another adit, collared 425 feet above the river and 125 feet east of the Risco adit, was driven north 4° east for 185 feet.

Two holes were diamond drilled from this adit.

#### Description:

The area of these claims, three miles southwest of the Tintina Trench, is underlain by rocks of Unit C (Green, 1972) here represented by greenstone, chloritic quartz-mica schists, phyllite and limestone. A steep, thickly talus-covered slope extends back from the Yukon River, with mineralized quartz-carbonate float being found up to 300 feet above the river. The adit driven in 1962 and 1963 penetrated 92 feet of talus before reaching crumpled schist bedrock. The talus included blocks of quartz-carbonate containing nickeliferous serpentine, disseminated galena and specks of tetrahedrite (Green, 1963, p. 20). Of the hydraulic cuts, one near river level, below the 1963 adit, exposed galena-bearing talus. Basic or ultrabasic rock, largely altered to dolomite, was exposed in one cut 400 feet above the river. On the slope above the cut is grey phyllite 300 feet thick followed by 100 feet of limestone with limy slate and 100 feet of altered greenstone.

#### Current Work and Results:

After the earlier claims lapsed, the ground was restaked by L. Patnode of Whitehorse in June 1971. During July and September of 1971, E.M. and magnetometer surveys were conducted on the property, readings being taken at 50-foot intervals on lines 200 feet apart in the vicinity of the float occurrences and exploratory adits, and at 50-foot intervals on lines 400 feet apart on the northern part of the property. Five west to west-northwest trending conductors were recognized, two of which had magnetic correlation.

MAYO MINING DISTRICT

HESS MOUNTAINS AREA

HORN CLAIMS

Canadian Industrial Gas  
and Oil Limited  
640 - 8th Avenue Southwest  
Calgary 2, Alberta.

Copper  
105 0 12  
(63°40'N, 131°30'W)

Reference: Craig and Laporte (1972).

Claims: HORN 1-9

Location and Access:

Lying in a north-facing cirque about four miles east of the junction of Old Cabin Creek and Rogue River, the claims can be reached by helicopter from Sheldon Lake on the Canol Road about 100 miles from Ross River, a flight of about 80 miles.

History:

The area was staked in 1968 and mapped in 1970. Some geochemistry was carried out in the past.

Description:

The HORN claims are in unforested alpine terrain ranging in elevation from 3,400 feet to 7,100 feet. The claims are underlain by a series of carbonate-bearing shales and banded cherts of Silurian-Ordovician age, capped unconformably by volcanic rocks of Tertiary age.

The shale is buff-colored, fissile, strikes 340°-350° and dips east; it is truncated at the 6,000 foot level by the angular unconformity. The rocks are folded and faulted. Chlorite and pyrite are sparsely distributed in these rocks.

The volcanic rock is fine-grained, dark grey-green and intensely jointed. It contains disseminated pyrite cubes, pods and lenses of pyrite and pyrrhotite, veins of pyrite and pyrrhotite with minor chalcopyrite and shear zones containing euhedral quartz. Gypsum-bearing gossans are present.

A crushed, quartz-carbonate vein system trending 340° across an arête at the southern end of the property, and which appears to exist only in the volcanic unit - not penetrating the chert - contains up to 40% pyrrhotite with pyrite and rare chalcopyrite. What appears to be a branch of the main vein outcrops south of it.

Current Work and Results:

The company conducted a six-day geological examination and channel sampling program in 1970. The vein deposit is small and low grade.

SCOT GROUP  
Cima Resources Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia.

Zinc, Copper, Silver  
105 0 6  
(63°20'N, 131°17'W)

Claims: SCOT 1-6, 19, 24, 26, 29 and 30

Location and Access:

The claims are on the north side of the Hess River about three miles north-northeast of Nidderly Lake and 100 air-miles from Ross River. Access is by float plane to Jake Lake, one and one-half miles northeast of the property.

History:

Claims SCOT 1-24 were staked late in the 1967 season, as a result of a strong zinc soil geochemical anomaly. In 1968, geological mapping, soil geochemistry, magnetic and EM surveys, and silt sampling were carried out. In 1969 more soil geochemistry was done.

Description:

Geochemical soil and silt sampling outlined a large high magnitude zinc anomaly on the SCOT claim group. The claims are underlain by steeply dipping, southeasterly trending graphitic chert, shale and slate, with minor limestone, quartzite and phyllite. The best geochemical response is in an area of deep overburden cover. Travertine occurs as float and is also being deposited from ground water over much of the zinc anomaly. The travertine assayed as much as 1% zinc. No sulphide minerals have been found in the vicinity of the soil anomaly.

The zinc causing the soil anomaly has apparently been transported in ground water, concentrated at the surface, and precipitated with the travertine.

Current Work and Results:

A gravity survey was conducted on the SCOT claims in 1971. A residual gravity anomaly with peak values of 0.9 milligals was defined. This anomaly does not appear to be the result of surface topographic effects.

The large zinc anomaly in soils is slightly downslope from the gravity anomaly.

PLATA  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia.

Silver, Lead, Zinc  
105 N 9  
(63°35'N, 132°02'W)

Reference: Blusson and Tempelman-Kluit (1970, pp. 29-32).

Claims: PLATA 1-232, 241-288; INCA 1-32

Location and Access:

The PLATA property, at 3,000 to 6,500 feet in elevation is in the Bostock Range of the Hess Mountains between the Rogue and the Hess rivers, 115 miles east of Mayo and 108 miles north of Ross River. Access is by float plane to a lake 2,500 feet long, seven miles to the south and by helicopter to the property.

History:

The property was staked in August and September of 1972; the area of the main silver-lead-zinc showing having been previously held as the GREG claims, staked by Atlas in 1969.

Description:

The PLATA claims are underlain by argillaceous low-rank metasedimentary rocks ranging in age from Proterozoic to Mississippian. A sequence of red and green slate with minor quartzite and limestone (unit 2? and 7, Blusson and Tempelman-Kluit, 1970) is unconformably overlain by Devonian-Mississippian argillite, slate and chert-pebble conglomerate (unit 12, op. cit.). These rocks are intruded by quartz-muscovite porphyry and aplite dykes and sills of probable Cretaceous age (unit 14, op. cit.).

The rocks strike west to west-northwest, are isoclinally folded with amplitudes of a few hundred feet and are displaced along bedding plane faults. One prominent fault system trends northeast, containing a breccia with quartz, carbonate and pyrite. A second fault system trends north-northwest, has right lateral displacement and includes the Plata fault zone which strikes 150° and dips 65° southwest.

Mineral showings are localized on the north flank of an anticlinal structure with four distinctly different sets of faults and fractures. It is not known which set most strongly controls the mineralization, but the Plata zone has the most promising showings associated with it.

Several mineralogical assemblages are represented by various vein types: galena, quartz-tetrahedrite, galena-sphalerite-tetrahedrite, siderite-spahlerite-galena replacement and arsenopyrite-pyrite-galena-boulangerite-tetrahedrite. Six major showings and several smaller ones have been discovered. The main showing (No. 4) strikes 80°, dips 45° south and has been traced over a strike length of 700 feet with a true width of five to 18 feet.

### Current Work and Results:

Following staking, 17.5 miles of line were cut for geophysical and geochemical surveys. Aerial photography was flown to provide coverage of 54 square miles at a scale of one inch to 1,000 feet. Ground control was established for topographic map preparation. Thirteen hand pits were dug, blasted and sampled. Six holes totalling 1,315 feet were diamond drilled between mid-September and the end of October. This drilling demonstrated the continuity of the main vein system for at least 750 feet down dip and a slight flattening from 45° at surface to 35° to 40° at depth. Assays from the six-foot vein intersection in Hole No. 4 indicated 3.4 to 8.0 per cent lead, 10.8 to 15.3 per cent zinc and 10 ounces per ton silver. The silver:lead ratio declined from roughly 5:1 at surface to 2:1 at depth.

A test EM survey demonstrated a marked response at high frequency over the main showing.

The geochemical survey consisted of samples taken at 100-foot intervals along the cut lines, spacing being 100 feet near the main showing and 400 feet on the rest of the grid. The most prominent lead anomaly overlies the vein system of the main showing. Zinc response is low. Two downslope zinc anomalies do occur at the east and west ends of a known vein system. A second prominent lead-zinc anomaly occurs in the northwest part of the grid. Three small showings account for part of this anomaly but much of it remains to be explained by further work.

A major program of bulldozer trenching, geological mapping and soil sampling is planned for 1973.

### McQUESTEN RIVER

TED GROUP	Gold, Silver, Copper,
Quintana Minerals Corporation Limited	Lead, Zinc
1215 Two Bentall Centre	115 P 15
Vancouver, British Columbia.	(63°50'N, 136°45'W)

References: Green (1971; 1972); Bostock (1964).

Claims: TED 1-8, 11-68

### Location and Access:

The property is between Boulder and Fortymile creeks, tributaries of McQuesten River, 30 miles west-northwest of Mayo at from 3,500 to 5,800 feet elevation in moderately rugged terrain of the Syenite Range. Access is by helicopter from Mayo.

### History:

Earlier work consisted of bulldozer trenching by H. Triggs in the late 1960's and sampling of mineralized outcrops by I.B. Gray in 1970.



### Description:

The oldest rocks on the property occur southwest of a prominent, northwest-trending southwest-dipping thrust fault. These rocks are correlated with the Grit division in the McQuesten Lake area to the northeast (units 3 and 4, Green, 1971, Map 1268A) and on the TED property consist of micaceous quartzite, quartz-chlorite-muscovite schist and quartz-chlorite-muscovite-graphite schist forming a gently southwesterly plunging antiform. North of the thrust fault and underlying most of the property is a northwest-dipping homoclinal succession of quartzitic rocks tentatively correlated with the Lower Schist division and Keno Hill Quartzite (units 7 and 8, op. Cit.). The Lower Schist division rocks here consist of some 700 feet of calc-silicate quartzite, micaceous quartzite and minor quartz-muscovite-chlorite schist. Probably Keno Hill Quartzite consisting of micaceous and limy quartzite with minor phyllite overlie the Lower Schist division rocks.

A stock of biotite granite to granodiorite some 3,000 feet wide by at least two and one-half miles long trends north, intruding Lower Schist division rocks on its east and west sides and Grit unit rocks on the south end. The intrusion post-dates the thrust fault. Contact metamorphic effects, notably conversion of pelitic rocks to hornfels and development of pyrrhotite and andalusite, are apparent up to 3,500 feet from the stock.

The calc-silicate quartzite and micaceous quartzite of the Lower Schist division contain erratically disseminated pyrite, pyrrhotite, sphalerite, chalcopryrite, arsenopyrite and galena. Sphalerite and chalcopryrite additionally occur adjacent to the major thrust fault.

### Current Work and Results:

During 1971, M.R. Wolfhard did a brief reconnaissance. In 1972 geological mapping was done by Dr. C.L. Smith at one inch to 1,000 feet over nine square miles and at one inch to 400 feet over two square miles in the southwestern part of the property to illustrate metamorphic and alteration features. A geochemical survey consisted of chip sampling of mineralized outcrops, soil and rock sampling at 200-foot intervals on lines 400 feet apart on an area 4,000 by 7,000 feet, and silt sampling of streams. A ground magnetometer survey was done over the same grid as the geochemical sampling.

Earlier grab samples taken from the mineralized calc-silicate quartzite returned attractive assays for Au, Ag, Cu, Pb, Zn, Sn and W.

## HANSON LAKE

NOMAD GROUP	105 M 13, 14
Lacanex Mining Company Limited	106 D 3
Box 354, Royal Trust Tower	(63°58'N, 135°25'W)
Toronto Dominion Centre	
Toronto 111, Ontario.	

Reference: Boyle (1965).

Claims: NOMAD 84-90, 102-110, 123-132, 144-151, 153, 166, 168-175, 192-201, 213-221

### Location and Access:

The property is in McQuesten Valley near Hanson Lake and accessible from Highway No. 2.

### History:

In April, 1970, an aeromagnetic survey was done over NOMAD claims, west of Keno Hill.

### Description:

Precambrian and/or Paleozoic metamorphic and sedimentary rocks are found both north and south of the drift-covered central area of the claims. Mesozoic intrusive rock, including granodiorite, granite, diorite, quartz-feldspar porphyry and granite porphyry are mapped along the northern and southern limit of the area. Metadiorite and metagabbro (greenstone) are also present.

### Current Work and Results:

The purpose of the 1970 aeromagnetic survey was to determine the distribution of intrusive rocks and the geologic structure. The survey and interpretation, suggest numerous geological features and extensions of known features.

## SCHEELITE DOME

DARK CLAIMS  
Internation Minerals and Chemicals  
Corporation (Canada) Limited  
400 - 55 Yonge Street  
Toronto, Ontario.  
M5E 1J4

Tungsten  
115 P 16  
(63°47'N, 136°15'W)

Reference: Green (1971).

Claims: DARK 1-72

### Location and Access:

This block of 72 contiguous claims is about 18 miles northwest of Mayo, on Scheelite Dome near the head of Savage Gulch, Scheelite Gulch and Randolph Gulch, on the divide between McQuesten River and Minto Creek. A summer access road leaves Highway 2 about ten miles north of Mayo.

### History:

In 1969 R.J. Cathro did soil geochemistry in the Scheelite Dome area for G. Elvins (then owner of DARK 1-24) and established the application of soil geochemistry as a satisfactory method for tungsten exploration. Elvins optioned his claims to the present owners.

### Description:

Precambrian phyllitic quartzite, schist and minor limestone underlie Scheelite Dome and, to the east, are intruded by Cretaceous plutonic rocks (quartz monzonite, granodiorite, or minor granite and quartz diorite).

### Current Work and Results:

The area was soil sampled in 1971 and the resulting anomalous zones, at the heads of Randolph, Savage and Scheelite gulches, were explored by bulldozer trenches totalling 1,500 feet. The exposed rock was chip sampled. The assay results indicated that although scheelite is associated with quartz veins, the mineralized zone does not approach economic grade.

PAN, ARPA	Tungsten
C. Provencher	106 D 4
Whitehorse, Yukon Territory	(64°02'N, 135°47.5'W)

References: Keele (1904); MacLean (1914, pp. 127-152); Cockfield (1919); Green and Godwin (1963, pp. 9-10); Boyle (1965); Poole (1965); Gleeson et al (1965); Gleeson (1967); Green (1968, p. 17); Craig and Laporte (1972, pp. 18-19).

Claims: PAN 1-68; ARPA 57-88

Location and Access:

The property, 3,000 to 4,500 feet in elevation, covers the southwestern spur of the Potato Hills, including the upper part of Dublin Gulch. Access is by the 20 mile road from the Dublin Gulch placer workings which joins the Mayo-Elsa road 12 miles west of Elsa.

History:

The area has a long mining history; placer mining for gold having started in 1898 and lode exploration of gold-bearing stibnite-quartz-arsenopyrite veins dating from 1904 (Keele, 1904; MacLean, 1914). Keele reported placer scheelite and the search for sources led to trenching of ten occurrences in 1918 (Cockfield, 1919). Interest in vein occurrences was renewed with the finding of scheelite in large blocks of float in 1942. During 1960, Prospectors Airways staked the area and explored the gold-bearing veins. Consolidated Mining and Smelting Company Limited explored cassiterite-bearing veins at the mouth of Dublin Gulch in 1945. In 1962, Rio Plata Silver Mines Limited staked the western part of the property, did a Turam survey and cut bulldozer trenches exposing a silver-bearing vein and a gold-bearing arsenopyrite vein.

The Pan and ARPA claims were staked in 1968 and early 1969 for tungsten. A brief examination was made in 1969.

Description:

The area is underlain by Yukon Group quartz-mica schist, graphitic schist, phyllitic quartzite, minor limestone and skarn (unit 3, Boyle, 1965). Cretaceous granodiorite (unit 10, op. cit.) intrudes the older rocks as a northeast-trending stock three miles long by one-half to one mile wide. Altered, decomposed granite and diabase dykes also intrude the Yukon Group rocks. Veins with a variety of minerals have been found: gold, arsenopyrite, pyrite, jamesonite, cassiterite, scheelite and wolframite in quartz gangue.

The gold-bearing veins are within the metasediments at the northwest contact of the stock. Most of the veins are in clusters or swarms, trending northeast and dipping southeast and northwest in faults, fissures and irregular shatter zones. Scheelite is present in small quartz-vein stockworks in the

granitic rocks and is disseminated in marble, calcareous schist and calcareous quartzite at the eastern margin of the intrusion.

#### Current Work and Results:

During 1970, Canex Placer did a soil gold-silver-tungsten geochemical survey over the southwestern part of the claim group, sampling at 100-foot intervals on lines 400 feet apart. The distribution of high assays is erratic without well defined anomalies being recognized. Scattered high readings for gold were returned near the west end of the stock, above and south of Dublin Gulch. High silver readings are associated with an area of known silver veins on the Olive Crown Grant. The pattern of tungsten distribution, while erratic, does suggest a series of linear highs, consistent with scheelite in veins or shears within the stock. No correlation of the gold, silver and tungsten patterns is recognized. During 1971, Canex cut twenty bulldozer trenches across the quartz-scheelite vein system and diamond drilled roughly 2,000 feet in holes 300 feet to 400 feet long. This work further established the quartz-scheelite vein pattern. Tungsten assays over significant intersections are below economic grade.

#### KENO CITY

DUNCAN, AVENUE	Lead, Zinc, Silver
Canadian Reserve Oil and Gas Limited	105 M 14
1600 - 639 - 5th Avenue Southwest	(63°58'N, 135°06'W)
Calgary, Alberta.	

Reference: Green (1971).

Claims: DUNCAN 1-6; AVENUE 1-6

#### Location and Access:

The claims are just west of Beauvette Hill some eight miles northeast of Keno City. The property can be reached by 4-wheel drive vehicle over a ten-mile road from Keno City, which is six miles east of Elsa.

#### History:

The claims are owned by Silver Spring Mines Limited and were held under option by Canadian Reserve Oil and Gas Limited.

#### Description:

The claim area is underlain by graphitic phyllite and schist and phyllitic, thin-bedded quartzites of the Jurassic Lower Schist division (Green, 1971). Cretaceous greenstone sills and lenses intrude these rocks. Foliation typically trends east and dips southerly at 40 to 60 degrees.

#### Current Work and Results:

An evaluation report was prepared in 1971 by R.G. Hilker Limited of Whitehorse. In 1972, a geological examination and a



geochemical survey were made. Soil samples were taken at 200-foot intervals on lines 800 feet apart over most of the property and at 50-foot intervals on lines 100 feet apart in a small area north of the grid baseline in the vicinity of some old trenches. Samples were analysed by AA methods for Cu, Pb, Zn and Ag. A few isolated highs were recognized with the source suggested to be a small vein. No sulphides were seen in the old trenches. A four-inch pyrrhotite vein found in the course of prospecting is ten feet long.

ALBERTA AND YUKON GROUPS  
Canadian Reserve Oil and Gas Limited  
1600 - 639 - 5th Avenue Southwest  
Calgary 1, Alberta.

Silver, Lead  
105 M 13  
(63°54'N, 135°41'W)

Reference: Green (1971).

Claims: ALBERTA 1-17; YUKON 1-20

Location and Access:

The property is east of Haldane Creek and south of Corkery Creek, adjacent to the Mayo-Elsa road, 20 miles north of Mayo.

History:

No work is known prior to 1971.

Description:

The claims are covered by glacial overburden. Inferred bedrock geology is Upper Schist separated from Keno Hill Quartzite to the north by an east-west thrust.

Current Work and Results:

During 1971, a VLF-EM survey was conducted over bulldozed grid lines in an attempt to establish drill targets. This survey was considered unsuccessful due to the masking effect of the thick overburden.

In 1972, reconnaissance vertical loop EM (SE-300) surveying was done over 14.4 line miles followed by 3.9 miles of detailed EM surveying with the same equipment which defined two east-west conductors. Three holes were diamond drilled; information from one of these showed graphite to be the cause of the EM conductor.

## GALENA HILL

JOAN CLAIM  
United Keno Hill Mines Limited  
Elsa, Yukon Territory

Silver, Lead, Zinc  
105 M 14  
(63°55'N, 135°20'W)

Reference: Boyle (1965).

Claims: JOAN

Location and Access:

Situated on the eastern slope of Galena Hill the claim is connected to the Calumet-Keno City road by rough bush roads.

History:

Initially staked in 1924, the showing was known as the Eagle Vein. Jersey Yukon Mines Limited held the ground since the 1950's. Trenching and diamond drilling were done in 1964 with disappointing results. When the claim lapsed in 1971 it was restaked by the present owners.

Description:

The property is underlain mainly by bedded quartzite with minor graphite schist and phyllite (Boyle, 1965). Several greenstone bodies form resistant ridges in the area.

The Eagle Vein system contains siderite, quartz, pyrite, galena, sphalerite, arsenopyrite, freibergite, limonite and manganese oxides.

Current Work and Results:

Soil geochemistry in 1971 traced the Eagle Vein to the northeast where it is tentatively correlated with the Tin Can and Rico Vein systems.

UNITED KENO HILL MINES LIMITED  
Elsa, Yukon Territory  
and  
Box 40, Commerce Court West  
Toronto, Ontario.

Silver, Lead, Zinc  
105 M 14  
(63°55'N, 135°25'W)

References: Boyle (1956; 1957; 1965; 1968); Green and McTaggart (1960); Skinner (1961, pp. 21-25; 1962, pp. 22-27); Green and Godwin (1963, pp. 5-8; 1964, pp. 7-12); Green (1965, pp. 7-12; 1966, pp. 10-17); Gleeson (1966; 1967); Findlay (1967, pp. 18-21; 1969a, pp. 20-24; 1969b, pp. 10-12); Craig and Laporte (1972, pp. 11-13).

Claims: 668 claims, five surface leases and two Crown Grants

Location and Access:

The properties of United Keno Hill Mines Limited are on Keno and Galena hills, 32 road miles north of Mayo. Concentrates are trucked the 277 miles to Whitehorse, and transferred to the White Pass and Yukon Route Railway for the remaining 110 miles to the port of Skagway, Alaska.

History:

The Galena Hill-Keno Hill district has the longest lode production history of any part of the Yukon. Discovered in 1906, with minor production from 1913-1919, and following the discovery of the No. 9 vein on Keno Hill in 1919, there has been continuous production since, except for the period 1942 to 1946.

Description:

The silver-lead-zinc deposits of the Galena Hill-Keno Hill district occur in erratic shoots and lenses in northwest-trending vein faults which cut southeast-dipping finely-bedded to massive quartzites, intercalated schistose rocks and greenstone sills and lenses. The mineral assemblage is galena-sphalerite-freibergite-pyrite-chalcopyrite in a siderite gangue.

Current Work and Results:

During 1971, of 94,754 tons ore, roughly half came from the Calumet Mine with most of the remainder coming equally from the Elsa and Husky mines. A total of 5,485 feet of lateral development was completed. No ore was developed from 285 feet of lateral work in Hector Calumet. In the Elsa Mine, 953 feet of work developed a 36-foot ore shoot. In the No Cash the 100 foot-level adit was rehabilitated and preparations were made for stopping. The main development was in the Husky Mine where 3,730 feet of work developed 328 feet of ore. A crosscut was driven to explore the School Vein and the Tick Vein. Overburden drilling was continued on several vein systems in the area.

During 1972, the remaining ore in the Hecla and Calumet mines was extracted; further development did not prove ore and these mines closed. The No Cash and Elsa mines continued

production. About 130 feet of lateral development in the Elsa, exploring gravity anomalies failed to intersect ore. From the Townsite adit a crosscut was completed at 1,131 feet and drifts on the strong vein structure (567 feet north, 179 feet south) cut weakly mineralized zones. From the Dixie adit, the crosscut was completed at 1,011 feet. A drift to the north developed 15 feet of ore; the target was 59 feet further. The Husky Mine, under development since 1968, achieved full production by the end of 1972. Lateral development cut 108 feet of ore. The drift on the Tick vein was advanced 200 feet with no ore cut. The southwest drift was advanced 1,004 feet on a weak structure, with the target zone a further 1,200 feet.

Surface exploration consisted of further diamond drilling in the Shamrock area and overburden drilling on the southwest part of the Husky area.

Operating summary for 1970, 1971 and 1972 from information provided by the company:

	<u>1970</u>	<u>1971</u>	<u>1972</u>
Milled (tons)	93,213	94,754	80,646
Daily Average (tons)	255.4	259.6	220.3
Flotation Heads:			
Silver (oz/ton)	29.22	31.80	32.54
Lead (per cent)	3.65	4.47	3.96
Zinc (per cent)	4.35	3.83	2.66
Metal Production:			
Silver (oz)	2,601,960	2,919,693	2,503,921
Lead (lb)	6,583,652	8,220,513	6,108,042
Zinc (lb)	7,467,164	6,533,208	3,307,178
Cadmium (lb)	98,687	84,432	46,731
Metal Sales (Dollars)	6,854,728	6,714,042	6,120,944
Proven Reserves (tons)	142,260	86,000	65,000
Silver (oz/ton)	50.6	51.6	56.8
Lead (per cent)	6.7	5.3	6.4
Zinc (per cent)	4.6	2.4	1.5

## DAVIDSON RANGE

SILVER SPRING  
Canadian Reserve Oil and Gas Limited  
Suite 1600, Standard Life Building  
639 - 5th Avenue Southwest  
Calgary 1, Alberta.

Silver, Lead  
106 D 3  
(64°04'N, 135°15'W)

References: Green (1971); Wilson (1971; 1972).

Claims: SILVER 11-16, 23-28; SPRING 7-12; IRENE 1-6; COPPER 1-6;  
NAT 1-16; BEAR 1-8; LUCKY 1-8; OTTER 1-8; PUNCH 1-8;  
BOBI 1-8; TIGER 1-8

### Location and Access:

The area extends from the western edge of the Davidson Range down to McQuesten Lake and straddles Cache Creek. A secondary road connects with the highway at Elsa and bush roads give access to most of the property.

### History:

The Rambler Hill property in the eastern part of the claim group is described by Cockfield (1921) as having a flooded shaft and an adit directed at limonitic quartz-galena veins with pyrite, siderite, cerrusite, anglesite, malachite, and chalcopyrite.

### Description:

Graphitic schists of the Lower Schist unit, (Jurassic), underlie the claims. Diorite, gabbro and greenstone occur in a sequence of thin bedded quartzitic phyllite and graphitic phyllite.

Faults cut the area in a northerly direction and a north trending fault is associated with this lead occurrence.

### Current Work and Results:

EM and magnetometer surveys outlined shallow dipping graphitic schists as well as other steeply dipping conductors of unknown cause. Magnetic greenstone bodies were also outlined by the magnetometer survey. Twelve holes were diamond drilled on the IRENE claims in 1972, cutting sporadically mineralized schists.



CLARK  
Bullion Mountain Mining Limited  
1400 - 1030 West Georgia Street  
Vancouver 1, British Columbia.

Lead, Zinc, Silver  
106 D 2  
(64°08'N, 134°57'W)

References: Green (1962); Craig and Laporte (1972).

Claims: CLARK 1-86

Location and Access:

The claims are 18 miles northwest of Keno City, immediately south of Clark Lakes in the Davidson Range. Access is by helicopter or float plane from Mayo and by winter tote road from McQuesten Lakes.

History:

The claims were staked in 1967 and more added in 1968. The property was purchased by Bullion in 1970, and optioned by Scurry Rainbow Oil Limited in 1972.

Description:

The rocks are black to grey mottled limestone, graphitic schist and schistose, gritty quartzite (unit 3, Green, 1962) of Precambrian or Cambrian age. Work by Bullion in 1969 and 1970 indicated a quartzite antiform trending northwest within which the graphitic schist and limestone are crumpled (Craig and Laporte, 1972, p. 20). Galena, with lesser sphalerite and minor pyrite and chalcopyrite occur in drag folds and pipe-like replacements in the limestone, and as narrow veins in the quartzite and phyllite.

Current Work and Results:

During the 1971 season, Bullion built a tote road to the property, did further stripping and trenching of the discovery zone, completed a gravity survey and did diamond drilling. During 1972 the company reopened the road and conducted an I.P. survey over two zones, the first, the discovery area, the second over a gravity anomaly. Diamond drilling of gravity anomalies gave negative results; drilling targeted on combined gravity-I.P. anomalies, intersected galena.

## WERNECKE MOUNTAINS

CON GROUP  
Rackla River Mines Limited  
605, 535 Thurlow Street  
Vancouver, British Columbia

Silver, Lead, Zinc  
106 D 8  
(64°17'N, 134°15'W)

Reference: Green (1972)

Claims: BUD 1-24, 33-48; DAGO 3, 5; CON 1-40, 43-80

### Location and Access:

The property is in the Wernecke Mountains, two miles north of Kathleen Lakes and 70 miles northeast of Mayo. The area is one of rolling hills with local relief of 2,000 feet and a maximum elevation of 4,500 feet. A 45-mile tote road from McQuesten Lake is passable by light tracked vehicles late in the season. Kathleen Lakes are used by float or ski-equipped aircraft.

### History:

Claims CON 1-40, and 43-80 were staked in April 1972.

### Description:

The claims are underlain by Ordovician and Silurian limestone and dolomite (Green, Unit 8, Map 1282A) and an unconformity separates these rocks from Proterozoic dolomite (Unit 2, op.cit.). Locally flat thrusts and tight folds are present. Mineral showings consist of calcite-filled fractures containing galena, sphalerite, siderite and pyrite.

### Current Work and Results:

During the period late June to mid-August geochemical sampling was completed along claim lines over the property and on 400 by 400 foot grids in areas of limestone. A broad area, anomalous in lead and zinc was recognized on claims CON 22, 26, 36, 37 and 38. One packsack diamond drill hole was put down 39 feet, cutting banded and brecciated dolomite containing sphalerite.

## SOUTH MACMILLAN

PDM GROUP  
Phelps Dodge Corporation of Canada  
1112 West Pender Street  
Vancouver, British Columbia.

Copper  
105 J 13  
(62°51'N, 131°38'W)

References: Roddick and Green (1961); Sanford (1969, U.B.C. B.S.C. Thesis).

Claims: PDM 14, 16, 18, 37, 39-44, 46, 113-114, 130

### Location and Access:

The claims are five miles north of the South Macmillan River and 24 miles west of mile post 62, on the North Canal Road, about 66 miles north northeast of Ross River. Beaver aircraft can land on a small lake three miles north of the group; a helicopter was employed from this lake in 1972.

### History:

The original 144 claims were staked in the fall of 1971 over an intrusive plug that has an associated geochemical anomaly.

### Description:

Ordovician and Silurian chert, shale, quartzite and a chert pebble conglomerate trend northwest through the property. The sediments are cut by a biotite-hornblende granodiorite or monzonite of probable Cretaceous age, and have been conspicuously metamorphosed by it. The intrusion, which does not appear to be altered except in the mineralized zones, bears xenoliths and has a silicious margin.

Pyrite and minor chalcopyrite are related to the metamorphic rocks. Arsenopyrite and pyrite are associated with mafic mineral schlieren in the intrusion. The most prominent sulphides occur along fractures in the zones of disseminated sulphides.

### Current Work and Results:

In 1972, geological mapping, silt and soil sampling, a magnetometer survey, blasting and trenching revealed very sparsely distributed chalcopyrite and pyrrhotite within the intrusion. Copper is abundant in soil above the intrusion as are copper and molybdenum in the soil developed around the margins. High PH and abundant iron hydroxides in the soil enhanced the geochemical anomalies which, along with the magnetic response due to associated pyrrhotite, resulted in good definition of the metalliferous areas.

MACMILLAN TUNGSTEN  
Amax Northwest Mining Company Limited  
601, 535 Thurlow Street  
Vancouver, British Columbia

Tungsten, Copper  
105 0 , 105 P  
(63°17'N, 130°07'W)

References: Green (1965, pp. 48-50)  
Findlay (1969a, p.88; 1969b, pp.52-53)  
Allan and Findlay (1972, pp.97-101)

Claims: PAT, BETTY, BORDER, PAR, PIT, DONNA, GULL  
A total of 89 in Yukon

Location and Access:

The property is on the Yukon-Northwest Territories border in the Selwyn Mountains, seven miles north of MacMillan Pass at elevations ranging from 4,500 feet in the valleys to 7,280 feet on the border near the deposit. A seven mile access road links the property to the North Canol Road providing for vehicle access during the summer, a total of 410 miles from Whitehorse. A 2,000 foot airstrip beside the Canol Road, five miles southwest of MacMillan Pass is 20 road miles from the claims.

History:

The property was discovered in 1962 by prospectors of Southwest Potash Corporation, a subsidiary of American Metals Climax. Preliminary surface exploration was done in 1963 and 1964. Geochemical reconnaissance and geological mapping in 1967 were followed by 4,600 feet of diamond drilling in five holes in 1968,

Description:

A sedimentary succession ranging in age from Proterozoic to Devonian-Mississippian is present in the area. The Proterozoic rocks, consisting of phyllite and muscovite schist are unconformably overlain by 1,000 to 1,500 feet of argillite, argillaceous siltstone, impure limestone and dolomite of Ordovician Road River Formation. The overlying, younger sedimentary rocks occur south of the property and consist of shale, argillite, argillaceous limestone, limestone and a conglomerate having a dark, argillaceous matrix with elongate quartzite and chert clasts. Two Cretaceous quartz-monzonite intrusions, referred to as the Peak 7280 and Rockslide Creek Stocks, intrude the Road River Formation. The company has locally subdivided the Road River into seven units (Allan and Findlay, 1972, p.99).

Contact metamorphism has produced an aureole in which the argillaceous sediments are converted to hornfels and the calcareous rocks to calc-silicate skarn and marble. Two skarn types are recognized: one a dark skarn consisting of dark pyroxene with minor amounts of garnet, hornblende, plagioclase,

and quartz; the other a lighter coloured rock essentially of diopside with minor quartz and plagioclase.

Scheelite is present in two zones; the lower is in the B unit which strikes west and dips  $30^{\circ}$  south, and the upper, 350 feet higher in section, involves units D, E and F. Most of the scheelite is in the dark skarn phase of these units, fairly evenly disseminated as 0.5-1 mm grains. It is also present as larger crystals in quartz and quartz-plagioclase veins cutting light coloured skarn and the quartz-monzonite intrusion. Chalcopyrite occurs with scheelite in the dark coloured skarn of the B zone.

#### Current Work and Results:

Major drilling programs were conducted in 1971 and 1972: 8,000 feet in 1971 and 20,000 feet in 1972. This work indicated the B zone to be at least 600 by 1,300 feet and ranging from 40 to 70 feet thick. The upper mineralized zone is 900 by 1,300 feet and 30 to 200 feet thick.

The company announced that the drilling outlined some 30 million tons having a grade of 0.9 percent  $WO_3$  (Northern Miner February 8, 1973).



WHITEHORSE MINING DISTRICT

WHITE RIVER

LIBRA	Copper, Molybdenum
Marguerite Lake Mines Limited	115 N 1
1710, 1177 West Hastings Street	(63°03'N, 140°13'W)
Vancouver, British Columbia	

Reference: Bostock (1942, Map 711A)

Claims: LIBRA 1-113

Location and Access:

Aircraft for the airborne geophysical survey were based at Beaver Creek, Mile 1203 on the Alaska Highway 50 miles south of the claims.

Description:

The geological information on the claims is that provided by government maps. On the basis of geological results and detailed geology on claims adjacent to the LIBRA group, the suggestion is that the aeromagnetic anomalies are caused by Tertiary basic volcanics of the Carmacks group. The surrounding Yukon Group gneisses and quartzites have low magnetic susceptibilities as does an intrusive Jurassic monzonite.

Current Work and Results:

An aeromagnetic survey flown early in 1971 was used, along with the information from the adjacent ARIES claims, to interpret the rock units, faults and contacts.

WRANGELL	Copper, Molybdenum
Kennco Explorations (Western) Ltd.	115 K 2
730, 505 Burrard Street	(62°01'N, 140°56'W)
Vancouver, British Columbia	

Reference: Muller (1967)

Claims: WRANGELL 7-10, 17-22

Location and Access:

The claims are situated in a strongly dissected part of the Klane Ranges, adjacent to the Alaskan Border, about 30 miles south of Beaver Creek at Mile 1203 on the Alaska Highway and 15 miles west of the Highway bridge over the White River. In 1970 and 1971, access was by helicopter from White River and Beaver Creek.

### History:

The claims were staked in 1970.

### Description:

The area is underlain by Upper Jurassic to Lower Cretaceous stocks of the Kluane Ranges intrusions (unit 18, Muller, 1967) and by Lower Cretaceous Dezadeash Group sediments (unit 16, op. cit.). Company work suggest that syntectonic granodiorite bodies are concordant with the main trends of older gneiss and schist. The intrusives are of several phases, including porphyry and breccia. Discordant quartz-feldspar porphyry and granite of probable Tertiary age cut the Mesozoic granodiorite. Minor sills of andesite and porphyritic andesite are present in the Dezadeash Group sediments. Basalt dykes, the youngest rocks, cut the granitic rocks. Rare breccia zones, occurring near the eastern margin of the granodiorite, are barren. Weak alteration products are chlorite and epidote. Pyrrhotite is present on joint and fracture surfaces. Rare chalcopyrite, malachite, chalcocite and molybdenite are present.

### Current Work and Results:

Reconnaissance geology and silt geochemistry demonstrated several copper and molybdenum anomalies. Later work, applying rock geochemistry confirmed that copper, molybdenum and gold occur where later leucocratic phases intrude a major granodiorite stock.

RAY  
Imperial Oil Enterprises Limited  
500 - 6th Avenue Southwest  
Calgary, Alberta.

Copper  
115 F 15  
(61°59'N, 140°46'W)

Reference: Muller (1967).

Claims: RAY 1-6

### Location and Access:

The claims are seven miles west of Mile 1169 on the Alaska Highway, near the headwaters of Sandpete Creek, on a northwest trending ridge between 5,200 and 6,600 feet elevation. Access is by helicopter from the Alaska Highway.

### History:

The claims were staked in 1970 following discovery of copper minerals in an area indicated to be favourable by a 1966 regional geochemical survey.

### Description:

The regional pattern of this area, southwest of the Shakkwak Trench, is one of elongate, northwest trending belts of volcanic and sedimentary rocks from Permian to Cretaceous in age,

which have been folded, thrust-faulted and intruded by sill-like intrusions. The intrusions range from ultrabasic to granitic composition and are Cretaceous to Tertiary in age.

The oldest rock unit recognized on the property, probably of the Mush Lake Group, consists largely of dark green and brown, massive andesite with minor amounts of porphyritic, amygdaloidal, and altered varieties. Porphyritic dykes and quartz veins cut the andesite. Minor shale and basalt occur within the unit.

Unconformably overlying the andesite is a bed of light grey, massive limestone, more than 300 feet thick, containing black chert nodules. This limestone is cut by porphyry dykes and intruded by a diorite stock. Contact effects include the development of epidote-garnet skarn and altered xenoliths containing sparse copper minerals.

Overlying the limestone is a light brown to black, banded chert unit which contains minor pyrrhotite and pyrite near porphyry dyke contacts. The main intrusive rock, outcropping in the northeast part of the claims, is typically diorite. Locally, a gabbro phase contains minor pyrite and pyrrhotite.

#### Current Work and Results:

The company did prospecting and geological mapping on the claims in 1971. Some malachite, chalcopryite, pyrite, pyrrhotite and magnetite occur in narrow, discontinuous skarn zones.

LEP  
Imperial Oil Enterprises Limited  
500 - 6th Avenue Southwest  
Calgary 1, Alberta.

Copper, Zinc, Lead  
115 F 15  
(61°50'N, 140°33'W)

Reference: Muller (1967).

Claims: LEP 1-30

#### Location and Access:

The claims are 15 miles southwest of Koidern, Mile 1167 on the Alaska Highway. Access was by helicopter from Koidern during 1971 exploration. The claims are on a southwest facing slope above Moose Creek, from 3,500 to 5,500 feet in elevation.

#### History:

The claims were initially staked in 1966 following the discovery of chalcopryite and sphalerite during a geochemical reconnaissance survey by Geophoto Limited in the Kluane Range. Magnetic, E.M. and soil geochemical surveys were conducted in 1967. Some lapsed claims were restaked in 1970.

#### Description:

The LEP claims are underlain by a series of volcanic and sedimentary rocks intruded by a diorite stock, small mafic

bodies and diabase dykes. A sequence of andesite and rhyolite flows in the western part contain disseminated pyrrhotite, pyrite, chalcopyrite and magnetite. Topographically above and essentially conformable with the volcanics, a sequence of limestone, chert, quartzite, rusty shale and siltstone contains sphalerite, pyrite and galena; most of the sulphides are in the limestone.

The coarse-grained diorite stock in the eastern part contains disseminated pyrite, pyrrhotite and magnetite. Lamprophyre and pyroxenite dykes intrude the volcanics and sediments. Numerous fine-grained diabase dykes cut all rocks except these small mafic bodies. A prominent fault passes through the southern part of the claims.

#### Current Work and Results:

The 1971 work consisting of magnetic and I.P. surveys, and geological mapping revealed small narrow lenses of sphalerite, pyrite and minor galena in limestone and disseminated chalcopyrite at numerous places in the volcanics.

NICK  
Rainbow Lake Explorations Limited  
814 - 510 West Hastings Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 0 4  
(63°11'N, 139°53'W)

Reference: Bostock (1942).

Claims: NICK 1-30

#### Location and Access:

The NICK claims block lies at the north end of the Dawson Range, one mile south of the White River and eight miles west of its confluence with the Yukon River. Access is by river boat from Dawson or Stewart River, or by helicopter staged from Casino airstrip 70 miles to the southeast. At certain times of high water a float plane could land on the White River.

#### History:

These claims were staked during the 1969-1970 Dawson Range rush on the basis of an aeromagnetic anomaly.

#### Description:

Rocks of the area consist of Yukon Group schist and quartzite intruded by a stock of granitic porphyry. Locally the schists trend west. The intrusive material, probably of the early Klotassin plutonic suite, is a medium- to coarse-grained hornblende granodiorite, in part porphyritic. Minor saussuritization of feldspar is observed, but alteration is not strong.

#### Current Work and Results:

Following staking in early 1970, geological mapping and a soil geochemical survey was completed with essentially negative results. The claims lapsed early in 1972.

SILVER CITY MINES LIMITED  
580 Howe Street  
Vancouver, British Columbia

Copper  
115° F 15  
(61°47'N, 140°47.5'W)

References: Findlay (1967, pp. 51-52; 1969a, pp. 68-70; 1969b, pp. 40-41); Craig and Laporte (1972, pp. 98-100).

Claims: NUK, MARC, GOLDEN HORNE, SLAGGARD and HANNA groups, a total of 224 claims

Location and Access:

The White River property is on the east side of the White River 18 miles south of Mile 1168 on the Alaska Highway. Heavy equipment and fuel are brought in before break-up by a 20-mile tote road from the highway. Summer servicing is done by light float aircraft using a one-mile long lake on the property.

History:

Copper occurrences (native copper and chalcocite with minor chalcopyrite) have been known on the White River since the turn of the century. Part of the present property was first staked in 1905. Modern exploration consisted of 2,600 feet of diamond drilling, ground magnetometer and I.P. surveys in 1968, followed by 10,000 feet of diamond drilling and an I.P. survey in 1969. During 1970, Silver City Mines tested the mineralized zones indicated by surface exposures and diamond drilling, by an adit with north and south drifts, totalling 1,124 feet (Craig and Laporte, 1972).

Description:

The rocks on the White River property are volcanics of the Cache Creek Group (units 10 and 11, Muller, 1967) and the Mush Lake Group (unit 13, op. cit.). Rocks are brown to grey porphyritic andesite, purplish red amygdaloidal andesite and dark green, sheared, amygdaloidal basalt. The area is strongly faulted with the scarp of the north-northwest trending Generc-Tchawsahman Thrust being immediately southeast of the property. A probable major fault in Upper White River Canyon separates Cache Creek rocks on the west from Mush Lake rocks on the east. A north 20° east trending fracture zone offset by east trending small faults may control the copper mineralization. Numerous small faults and shear zones are obvious in the drill core and underground workings.

Current Work and Results:

The property was inactive during 1971. In 1972 the company diamond drilled 20 holes, totalling 2,900 feet from four stations in the drifts. The holes were fanned outwards and downwards to test the extent and grade of two mineralized zones in the south drift, one in the north, and one at the intersection of the two drifts. Assays from drill core and sludge samples confirmed the earlier work; high-grade intersections were found, but copper distribution is erratic in these sheared, volcanic rocks.



## DONJEK RANGE

### WELLGREEN MINE

Hudson-Yukon Mining Company Limited  
Box 28 Toronto Dominion Centre  
Toronto, Ontario.

Nickel, Copper

115 G 5

(61°28'N, 139°32'W)

References: Campbell (1960); Muller (1958; 1967); Findlay (1967, pp. 52-53; 1969b, p. 43); Craig and Laporte (1972, pp. 100-101).

Claims: 91 Claims

### Location and Access:

The mine is on Nickel Creek in the Kluane Ranges at 4,200 feet elevation. A nine-mile access road from Mile 1110 of the Alaska Highway follows Quill Creek Valley to the property.

### History:

Copper-nickel bearing massive sulphides were discovered in this Quill Creek tributary in 1952 by prospectors W.B. Green, C.A. Aird and C.H. Hankins of the Yukon Mining Company Limited. Hudson Bay Exploration and Development Company optioned the property and formed the subsidiary, Hudson-Yukon Mining Company Limited to explore and develop it. Major exploration from 1953 to 1956 consisted of 14,000 feet of underground workings on four levels and 65,000 feet of surface and underground diamond drilling. Reserves were quoted as 738,000 tons grading 2.04 per cent nickel, 1.42 per cent copper with minor cobalt, platinum and palladium. Exploration was resumed in 1968 with a ground geophysical survey followed by 2,500 feet of diamond drilling directed towards the discovery of disseminated sulphides near the previously explored massive sulphide zone. In March of 1970, the company announced that the property would be placed in production with concentrates going to Sumitomo Metal Mining Company of Japan. Development work, started in February 1970, consisted of slashing the exploration adit for mine haulage, sinking an internal shaft and driving of lateral openings in preparation for stoping. On surface, a mine dry and powerhouse were built at the portal; a mill was built and townsite established beside the Alaska Highway.

### Description:

Two peridotite dykes (unit 12, Muller, 1967) striking east and dipping steeply south intrude northwest trending Cache Creek basic volcanics and cherty tuff (unit 10, op. cit.) and argillite (unit 11, op. cit.). The southern dyke, 200 to 300 feet thick, consists of serpentized peridotite and feldspathic peridotite with a footwall marginal zone of fine to medium grained, altered, anorthositic gabbro or diorite (Findlay, 1967, p. 53). Massive to heavily disseminated lenses of pyrrhotite with chalcopyrite, pentlandite and violarite occur in this gabbro and to a lesser extent, in a bordering hornfels. Irregular ore shoots roughly parallel the ultramafic-gabbro contact.

### Current Work and Results:

During 1971 and early 1972, surface and underground preparation were completed and milling began in May at 360 tons per day.

### Operating Summary:

	<u>1972 (8 months)</u>
Milled (tons)	112,451
Daily Average	356
Grade	
Nickel (%)	2.05
Copper (%)	1.35
Platinum metals (oz/ton)	0.065
Cobalt (%)	0.073

Numerous small faults with displacements of a few feet to a few tens of feet offset blocks of ore making stoping and drawing of ore difficult. The weak hanging wall of peridotite and gabbro contributed further problems. In the fall of 1972 the company announced that the mine would close in 1973 due to lack of continuity of the orebody and poor ground conditions.

AMP	Copper
Nicanex Mines Limited	115 G 5, 6
821 - 602 West Hastings Street	(61°25'N, 139°30'W)
Vancouver, British Columbia.	

Reference: Muller, (1967).

Claims: AMP 103, 105-109, 111, 113, 115, 127-136, 138, 140, 142, 144, 146-151, 153

### Location and Access:

The claims are between Tatamagouche and Wade creeks ten miles west of the Duke River bridge. Vehicle access is possible from Mile 1110, by the Hudson-Yukon mine road to Nickel Creek and along the bed of Quill Creek to within one mile of the claims. The AMP claims are near the Cork property of Imperial Oil Company Limited.

### History:

The area has been staked several times and the claims allowed to lapse.

### Description:

This part of the Kluane Range is underlain by Paleozoic and Mesozoic volcanic and sedimentary rocks, intruded by nickel-bearing ultramafic intrusions and Cretaceous and Tertiary granitic rocks.

Triassic Mush Lake andesites and basalts occur adjacent to

the claims.

#### Current Work and Results:

The 1970 work outlined several copper anomalies but their source was not established. Possibilities include minor sulphides in volcanics, sulphide mineralization in limestone or volcanics, or porphyry type mineralization in acid intrusions.

#### WHITEHORSE AREA

ARK GROUP	Molybdenum
Canadian Occidental Petroleum Limited	105 D 12
801 - 161 Eglinton Avenue East	(60°36'N, 135°39'W)
Toronto 12, Ontario.	

Claims: ARK 1-56

#### Location and Access:

The ARK claims are about 21 miles west-southwest of Whitehorse. Access is by helicopter although there is an old trail south from the Alaska Highway. The claim block includes Mount Arkell, 7,245 feet, in the northeast corner and is drained by a north-trending valley, at 4,100 feet.

#### History:

The claims were staked as a result of a 1971 reconnaissance stream geochemistry survey.

#### Description:

The property is in an area of hornblende-biotite granodiorite of probable Mesozoic age, cut in the south by biotite granite. Swarms of north trending dykes of varying composition cut the granodiorite and are spatially related to chlorite and epidote alteration in the granodiorite.

Molybdenite occurs in quartz stringers and is disseminated throughout the granodiorite and dykes. Minor chalcopyrite occurs with epidote within a chloritized porphyry dyke. Magnetite veinlets and stringers cut the granodiorite. Finely disseminated magnetite is common in the acidic dykes.

#### Current Work and Results:

Geological mapping and soil geochemistry, intended to explain the copper and molybdenum stream sediment anomalies, revealed minor copper, zinc, and molybdenum sulphides in the area. High zinc results correlate with pyritic parts of the intrusions, as confirmed by rock geochemistry.

WAT, SON, RIV  
Phelps Dodge Corporation  
of Canada Limited  
404 - 1112 West Pender Street  
Vancouver 1, British Columbia.

Copper, Molybdenum  
105 D 5  
(60°20'N, 135°20'W)

Reference: Wheeler (1961).

Claims: WAT 1-8; SON 1-8; RIV 1-8

Location and Access:

The property is on the north side of Watson River, two miles southeast of Alligator Lake and 27 miles south-southwest of Whitehorse. Bush roads extending west from Robinson, on the Carcross road, pass near the property. Most work was serviced by helicopters from Whitehorse.

History:

The claims were staked to cover a copper-molybdenum soil geochemical anomaly found in July 1970.

Description:

The property is underlain by biotite granodiorite of the Coast Intrusions (unit 8, Wheeler, 1961). Numerous intermediate to mafic intrusive dykes are present. These are porphyritic with phenocrysts of feldspar, quartz and biotite. A few small bodies of fine-grained granodiorite and biotite granite are present.

Shear and fracture zones are common, especially in the vicinity of a gossan on a rock cliff in the southeast part of the property. Small amounts of chalcopyrite, malachite, azurite and ferrimolybdate are associated with quartz veins in shear zones. Pyrite is the major cause of the gossan but is not closely related to the copper or molybdenum minerals.

Except for the steep rock face, there is little outcrop on the property.

Current Work and Results:

In 1971 a consultant did geological mapping and a geochemical soil survey on the property. The small, scattered occurrences of copper and molybdenum minerals did not justify further work.

HAWK, NICH  
M. Nichiporich  
Whitehorse, Yukon Territory

Copper  
105 D 9  
(60°35'N, 134°24'W)

Reference: Wheeler (1961).

Claims: HAWK 1-3; NICH 3

Location and Access:

The claims are roughly two miles north of Marsh Lake and 24 miles east-southeast of Whitehorse. Access in 1971 was by a 2.7-mile road which leaves the Alaska Highway at Mile 887.2.

History:

The claims were staked by M. Nichiporich in 1969. The occurrence has been known for some time as there are a number of old test pits and shafts on the property, many of which are now sloughed in. The occurrence is also referred to by Wheeler (1961, p. 143). In 1970, the present owner drilled an 87-foot X-ray diamond-drill hole which cut minor sulphides assaying from 0.03 to 0.05 per cent copper.

Description:

The property is underlain by metamorphosed volcanic rocks of uncertain age (unit Aa, Wheeler, 1961), consisting mainly of hornblende porphyry and andesite. These two rock types appear to be gradational. A volcanic breccia consisting of fragments of buff-coloured siliceous volcanic rock cemented by quartz and calcite is also present. Thin bands of light-green to dark-grey banded chert occur locally within andesite and appear to be associated with local lenses of garnet-epidote-calcite skarn. Aphanitic, light-grey to green aplite occurs as dykes from one-inch to ten feet wide cutting andesite. The aplite dykes may, in fact, be rhyolite flows as the relationship to the andesite is not clear.

Copper showings consist of chalcopyrite with lesser bornite associated with disseminated pyrite and occur in chert at or near the contact with andesite and with quartz in the brecciated volcanic rocks.

Current Work and Results:

The occurrence was examined briefly in 1971 at which time a number of rock and soil samples were collected. The four rock samples collected, assayed: 0.02, 0.10, 0.03 and 0.03 per cent copper.



VIC  
Lewes River Mines Limited  
514 - 355 Burrard Street  
Vancouver, British Columbia.

Copper  
105 D 10  
(60°38'N, 134°50'W)

References: Kindle (1964); Wheeler (1961); Findlay (1969b, pp. 34-35); Craig and Laporte (1972, pp. 112-113).

Claims: VIC 46-49, 55-62

Location and Access:

The claims are at the south end of Cantlie Lake, nine miles southeast of Whitehorse. Access in 1971 was via helicopter from Whitehorse.

History:

The VIC claims were staked during the 1960's and subsequently acquired by Lewes River Mines Limited. In 1968, a low level aeromagnetic survey outlined a linear magnetic anomaly on the property.

Description:

Although largely covered by overburden, the area lies near the eastern contact of the Whitehorse Stock (unit 8, Wheeler, 1961) with Lewes River sediments (unit 3, op. cit.) and could be favourable for contact metamorphic copper deposits such as occur in the Whitehorse Copper Belt.

Current Work and Results:

Geological mapping and soil sampling were carried out on the property in 1971. A single outcrop of diorite in contact with shale and limestone was found. The attitude of the contact indicates that Lewes River sediments underlie most of the property.

The soil sampling failed to outline any copper anomalies.

GREEN EAGLE, JOY  
Charta Mines Limited  
230, 890 West Pender Street  
Vancouver, British Columbia

Copper, Molybdenum  
115 A 8  
(60°15'N, 136°22'W)

Reference: Kindle (1953)

Claims: GREEN EAGLE 1-16: JOY 1-12

Location and Access:

The claims are situated on the west side of Kusawa Lake and southeast of Frederick Lake. Access in 1971 was by fixed-wing aircraft to Kusawa Lake from Whitehorse, 56 miles to the east-northeast, and then via helicopter to the property itself.

History:

The GREEN EAGLE claims were originally staked by J.B. O'Neill in 1969 and subsequently acquired by Charta Mines Limited. The JOY claims were added in 1971.

Description:

The property lies entirely within an area underlain by Cretaceous Coast Intrusions (Unit 7, Kindle, 1953).

The oldest rocks in the area are biotite schist and amphibolite of the Yukon Group which occur as xenoliths in the intrusive rocks.

Rocks of the Coast Intrusions consist of hornblende granodiorite and biotite granite intruded by granite and quartz-orthoclase porphyry. Altered rocks, highly brecciated and mylonitized, occur locally as a small breccia plug and along fault zones.

Tertiary diabase and dacite dykes cut the Coast Intrusions.

Current Work and Results:

Geological mapping, soil sampling and a ground magnetic survey were carried out on the property during the 1971 field season.

Soil sampling showed higher than background values for copper, molybdenum, silver, lead and zinc throughout the surveyed area in a zonal pattern with copper and molybdenum in the centre and haloed by lead, zinc and silver values.

The magnetic survey showed relatively flat relief for which no distinct trends were observed.

WHITEHORSE COPPER MINES LIMITED  
1695 - 555 Burrard Street  
Vancouver, British Columbia  
-and-  
Mile 905 Alaska Highway  
Whitehorse, Yukon Territory

Copper, Silver, Gold  
105 D 10, 11  
(60°33'N, to 60°45'N,  
134°53'W to 135°10'W)

References:     Kindle (1964);  
                     Green (1965, pp.40-41, 1966, pp.50-51)  
                     Green and Godwin (1964, pp.33-39)  
                     Findlay (1967, pp.41-43; 1969, pp.49-54)  
                     Hilker (1967)  
                     Craig and Laporte (1972, pp.110-111)

Claims:        677 claims in the Whitehorse Copper Belt

Location and Access:

The deposits of Whitehorse Copper Mines are in the Whitehorse Copper Belt, an arcuate area four miles by 20 miles trending northwest to north three miles west of the city of Whitehorse. The open pit deposits are linked to the mill by mine haulage roads.

History:

Copper occurrences have been known at least as early as 1897 and most of the presently known occurrences were first staked in 1898 and 1899. A few tons of hand-picked ore were produced between 1900 and 1909; one shipment from the Copper King in 1900 graded 46.4 percent copper.

More significant production took place from 1912 until 1920 when low copper prices made mining in the Copper Belt uneconomic. Richmond Yukon Company did diamond drilling in 1927 and Noranda did geophysical work, trenching and diamond drilling on the Little Chief, Middle Chief, Big Chief and Valerie from 1946 to 1948.

Imperial Mines and Metals Limited, formed in 1954 to explore the deposits did magnetometer surveys and diamond drilling on the Arctic Chief and Best Chance prospects. Reorganized as New Imperial Mines Limited in 1957, the company completed further diamond drilling in 1963 and 1964. Mining began in 1966 from the Little Chief open pit and milling started in May of 1967. Production from 1967 to 1970 was from the Little Chief, Arctic Chief and War Eagle pits. Deep drilling on the Little Chief outlined 2.8 million tons of ore grading 2 percent copper. A decline to gain access to this underground ore was started in November, 1969 and continued throughout 1970.

### Description:

Whitehorse Copper Belt deposits are irregular, contact metasomatic lenses in skarn zones developed in Triassic Lewes River limestone at the contact with diorite to granodiorite rock of the Coast Range Intrusions. The gangue mineral assemblage at the Little Chief is diopside, epidote, tremolite-actinolite, garnet, serpentine magnetite, hematite and rare asbestos. Ore minerals are chalcopyrite, bornite, chalcocite, vallerite and rare native copper.

### Current Work and Results:

Production in 1971 was from Black Cub South pit during January until stopped by poor ground conditions with the pit almost completed. The Keewenaw pit was readied for production and provided mill feed from late February until June, when low copper prices made mining of 1.06 percent copper uneconomic and operations ceased.

Operating summary provided by the Company:

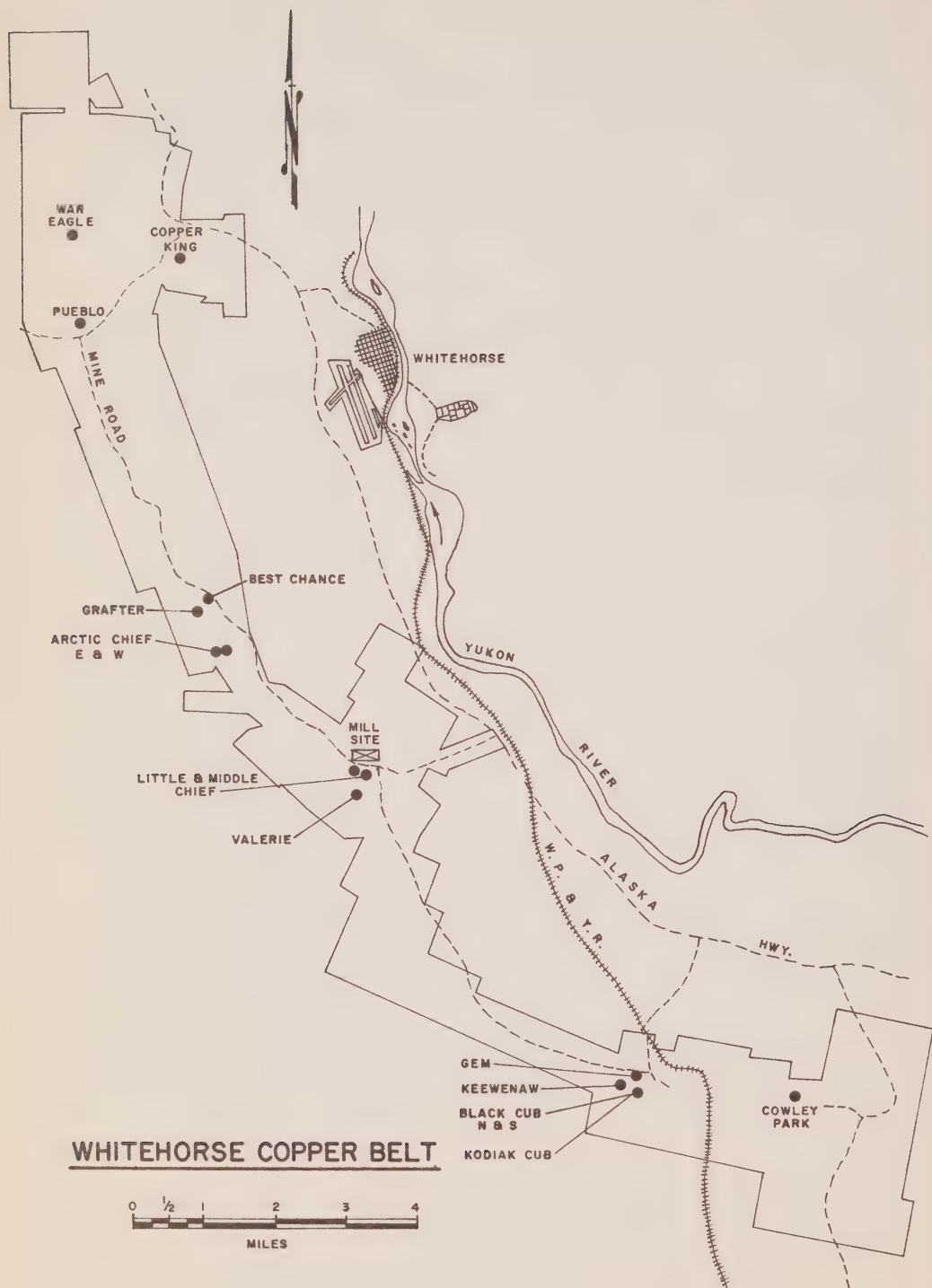
	1971 (Jan. to June)	1972 (December)
Milled (tons)	337,758	10,707
Grade (percent)	1.02	1.92
Reserves (tons)	2,702,274	3,216,703
and		
Grade (percent)	at 2.38	at 2.47

Development work continued with the driving of the decline started in late 1969, stope preparation and the sinking of a 14-foot diameter vertical shaft to be connected with the decline. The shaft was completed in May, 1972; other development continued and milling resumed in December.

Corporate reorganization in August, 1971 involved an operating joint venture agreement with Hudson Bay Mining and Smelting Company Limited and Anglo American Corporation of Canada Exploration Limited and a change of name from New Imperial Mines Limited to Whitehorse Copper Mines Limited.

During 1971 company exploration consisted of I.P. and magnetometer surveys on the War Eagle property followed by surface diamond drilling of an I.P. anomaly north of the open pit mined in 1969 and 1970.

By further joint venture agreement made in May 1972, Hudson Bay Exploration and Development and Anglo American are to undertake exploration of the present company holdings in the Whitehorse Copper Belt north of the Little Chief area.





WAR EAGLE, PUEBLO  
Hudson Bay Exploration and Development  
Company Limited  
Box 28, Toronto Dominion Centre  
Toronto, Ontario.

Copper  
105 D 11  
(60°44'N, 135°11'W)

References: Kindle (1964); Green (1965, pp. 40-41; 1966, pp. 50-51); Green and Godwin (1964, pp. 33-39); Findlay (1967, pp. 41-43; 1969, pp. 49-54); Hilker (1967); Craig and Laporte (1972, pp. 110-111).

Claims: WE, PUEBLO

Location and Access:

The two properties are five miles northwest of Whitehorse near the north end of the Copper Belt. Access is by mine haulage roads.

History:

The prospects were originally staked in 1898 to 1899. The PUEBLO was worked between 1912 and 1917. The main production of New Imperial Mines from July of 1969 to December 1970 came from the WAR EAGLE open pit - 1,200,000 tons grading 1 per cent copper.

Description:

The WAR EAGLE deposit is in garnet diopside skarn with minor epidote and tremolite-actinolite, adjacent to granodiorite of the Coast Intrusions. The main sulphide minerals are chalcopyrite and bornite. The Pueblo skarn carries abundant specularite as well.

Current Work and Results:

During 1972, following the joint venture agreement with Whitehorse Copper Mines Limited, Hudson Bay Exploration and Development explored beneath the WAR EAGLE open pit with six holes totalling 4,710 feet, drilled from the west and north of the pit. The drilling intersected skarn and Lewes River limestone and quartzite. At the PUEBLO, five holes totalling 3,362 feet cut quartz diorite and limestone. No significantly mineralized intersections were reported from this drilling.

GROUSE CLAIMS

S. Takacs and E. Kreft  
Whitehorse, Yukon Territory

Copper

105 D 11  
(60°41'N, 135°21'W)

Reference: Wheeler (1961).

Claims: GROUSE 1-4, 7-14; ROY 1-8; LUNAR 1-8

Location and Access:

The showings are situated on a steep south-facing hillside north of Jackson Creek, about two miles west of Franklin Lake. In dry weather, four-wheel drive vehicles can reach the claims from the Fish Lake-Jackson Lake road.

History:

The showings have been explored by hand trenching, blasting and bulldozer stripping since their discovery in 1969.

Description:

The claims cover a part of the contact between Coast Intrusions of granitic composition and Lewes River limestone. Where exposed in trenches, the contact is irregular and cut by east-west faults. The granitic rocks vary from bleached and chloritized hornblende granite to altered quartz monzonite and porphyritic diorite. The limestones vary from coarsely crystalline marble to black, stylolitic, limestone.

The chalcopyrite-bearing skarn is coarse-grained actinolite-magnetite and diopside-magnetite with minor chlorite, serpentine and epidote. Pyrite, pyrrhotite and scheelite are present.

Several north trending andesite dykes up to ten feet wide cut the skarn zone. In places, they contain disseminated pyrite.

Malachite staining is abundant in the skarn and occurs in limonite-cemented rubble below the showing.

Current Work and Results:

New Jersey Zinc Exploration Company (Canada) Limited optioned the property and, in August, 1972, drilled six holes with a total length of 1,500 feet, intersecting three zones with a total length of 31 feet, in which the highest assays were: 0.26 per cent copper, 0.005 ounces gold per ton and 0.16 ounces silver per ton.

IDAHO HILL PROPERTY  
Whitehorse Silver Mines Limited  
c/o T.R. Tough and Associates Limited  
602 West Hastings Street  
Vancouver, British Columbia.

Gold, Silver, Lead,  
Zinc, Arsenic  
105 D 6  
(60°18'N, 135°04'W)

Claims: HP 1-27; KAY 1-8; HARLOS 1-2; DARLENE 3-6; SAIL 1-2

Location and Access:

Reached by way of the Annie Lake Road, the claims cover Idaho Hill and Folle Mountain on the west side of Corwin Valley. The property is about 28 miles south of Whitehorse.

History:

Silver minerals were discovered in 1893. A 140-foot drift cut low grade silver, lead, zinc and arsenic vein material. Cominco mapped and sampled four claims in 1964. During 1969, Whitehorse Silver Mines Limited did geochemical and geophysical surveys over a two-claim area covering most of the known showings.

Description:

The claims are underlain mainly by Lower Jurassic Laberge Group rocks consisting of massive silicified arkose, greywacke, and interbedded tuffs. These rocks form a northwesterly plunging anticline and are faulted and sheared. Porphyritic granodiorite outcrops on Idaho Hill and feldspar porphyry dykes are exposed in lower Schnabel Creek Canyon.

The showings are in veins consisting of pyrite, arsenopyrite, quartz and calcite with galena and sphalerite. The known veins are sheared and range from one to 40 feet in width along a strike length of 1,200 feet.

A strongly oxidized zone is present to a depth of 15 feet, as seen in trenches. Chip samples taken by Whitehorse Silver Mines assayed: 0.05 oz/ton gold, 2.22 oz/ton silver, and 0.36 per cent Pb.

Current Work and Results:

The company conducted a soil geochemical survey in 1971. Results were consistent with the geophysical response, being anomalous over the known showings. Few new showings were found.

## CARCROSS AREA

VENUS MINES LIMITED  
440 - 890 West Pender Street  
Vancouver, British Columbia.

Gold, Silver, Lead,  
Zinc, Cadmium  
105 D 2  
(60°01'N, 134°38.2'W)

References: Cairnes (1908, pp. 16-17; 1909, p. 31);  
Wheeler (1961, pp. 129-130); Findlay (1967, pp. 48-50;  
1969a, pp. 62-64; 1969b, pp. 37-39); Craig and Laporte  
(1972, pp. 115-117).

Claims: 40 claims owned and optioned of which 8 are Crown Grants

### Location and Access:

The property is on the west side of Windy Arm, Tagish Lake, ten miles southeast of Carcross. A 17-mile access road connects the property to Carcross.

### History:

The Montana Mountain area was explored for gold and silver from 1904 to 1918, with small production coming from several properties (Findlay, 1969b, p. 37) including 6,000 tons reportedly coming from Venus (Cairnes, 1917).

Modern work began in 1966. From 1966 to 1969 two adits, with drifts and crosscuts were driven on the 2,700-foot and 2,800-foot levels. The 2,650-foot sublevel was driven from a raise on the main vein between the two levels. Following a production decision in 1969, underground development consisted of establishing the 2,800-foot level and in 1970, the 2,850-foot sublevel by means of raises from the 2,700-foot level. Ore passes were built for stoping and 30,000 tons of development ore was stockpiled. The mill, of 300 tons per day capacity, was built on the shore of Windy Arm, five miles northeast of the mine, and was completed in time for milling to start in September, 1970,

### Description:

The Venus vein system trends north 20° east and dips 30° west. The veins consist of coarsely crystalline quartz and carbonate up to six feet thick with bands and lenses of pyrite, arsenopyrite, galena, sphalerite and minor chalcopyrite. Ruby silver is present in some parts of the main vein. The host rocks are andesite and andesite breccia of the Cretaceous Hutshi Group (unit 7, Wheeler, 1961).

### Current Work and Results:

Narrow vein widths, commonly less than minimum mining widths, contributed to dilution problems. It was found to be impossible to maintain either the projected 300 tons per day mine production or the anticipated grades. Mining and milling ceased in June, 1971, and the company went into receivership.

### Operating Summary:

	1970 (Sept - Dec)	1971 (Jan - June)
Milled (tons)	23,491	41,435
Daily Average (tons)	246	250

CHIEFTAIN HILL Copper  
Secord Investments Limited and 105 D 3  
Laura Development Limited (60°11'N, 135°23'W)  
Vancouver, British Columbia.

Reference: Wheeler (1961).

Claims: RACA 1-14

**Location and Access:**

The property is 40 miles south-southwest of Whitehorse, on Chieftain Hill, immediately west of Wheaton River, in rugged terrain, between 5,000 and 5,500 feet in elevation. An abandoned tote road, 30 miles long, extends from Robinson Station to the south side of Chieftain Hill. Work in 1972 was supported by helicopter from Whitehorse.

### History:

Yukon Antimony Limited staked the Chieftain Hill copper prospect in 1966 and did geological mapping and an I.P. survey in 1967. One 750 foot diamond-drill hole put down in 1967 on an I.P. anomaly intersected pyrite. The claims were allowed to lapse.

Description:

Chalcopyrite, pyrite, malachite and azurite are present as grains, patches and fragments in a breccia zone up to 200 feet wide between Tertiary Skukum Group pyroclastics (Wheeler, 1961, unit 10) and Cretaceous granodiorite (op. cit. unit 8). The zone is regarded by the company consultants as an intrusive breccia in a fault zone between these two units.

### Current Work and Results:

The claims were staked by the present owners in February, 1971, and briefly sampled during the following field season. In 1972, a series of 16 chip samples were taken over the ground on which grab samples of 1971 had suggested a grade of 0.1 to 0.5 per cent copper for the mineralized zone. The 1972 results gave an average of 0.11 per cent copper (high of 0.25 per cent) and 0.7 oz silver per ton.



## LAKE LABERGE

TUV	Copper, Molybdenum
United Keno Hill Mines Limited	105 E 7
Exploration Department	(61°18'N, 134°49'W)
Whitehorse, Yukon Territory	

Reference: Bostock and Lees (1938).

Claims: TUV 1-24

### Location and Access:

The claims are 16 miles east of Lake Laberge and 42 miles northeast of Whitehorse. The Teslin River is five miles to the east. During the 1972 field season access was by helicopter from Braeburn, 34 miles to the northwest. A winter tote road from Lake Laberge to Livingstone Creek passes four to five miles south of the property.

### History:

The claims were staked in July, 1972. No previous work in the area, other than the G.S.C. mapping (Bostock and Lees, 1938) is reported.

### Description:

The claims cover the southwest part of a Cretaceous stock consisting mainly of syenite, monzonite and granodiorite (units 11 and 12, Bostock and Lees, 1938). The stock intrudes sediments of the Laberge Series (unit 6, Bostock and Lees, 1938) which consist of argillite, shale, siltstone, limestone, arkose, sandstone and pebble conglomerate. The northwest trending Teslin lineament lies four miles to the east of the property.

Chalcopyrite occurs as thin coating on fractures and as disseminated grains in quartz veins and dolomite veins. Malachite and minor azurite occur as oxidation products of the chalcopyrite.

### Current Work and Results:

The 1972 field work consisted of geological mapping and soil sampling. The soil sampling outlined isolated copper and molybdenum anomalies.

KART	Copper
Caltor Syndicate	105 E 3
Whitehorse, Yukon Territory	(61°04'N, 135°03'W)

References: Bostock and Lees (1938); Findlay (1967, p. 43; 1969a, pp. 55-56).

Claims: KART 1-16

Location and Access:

The property is one mile east of Lake Laberge, roughly 25 miles north of Whitehorse. In 1972, a 27-mile road constructed by Pine Lake Mining Company Limited was passable by four-wheel drive vehicles only. Float-equipped aircraft were able to land at a small lake known locally as Dirty Dick Lake although they were restricted to light loads in mid-summer due to low water level.

History:

A number of old pits and trenches have been found on the property and probably date back to the early 1900's. Copper mineralization was discovered in some of these pits by R. Granger in 1966, and the JAC, TEA and MTC claim groups were staked. In 1967, Pine Lake Mining Company Limited carried out a drilling program on the property including three holes totalling 322 feet on the copper showings. All three holes were reported to have cut minor chalcopyrite. The claims subsequently lapsed and in 1971 Caltor Syndicate restaked the old copper showings as the KART claims.

Description:

The property is underlain mainly by north trending, east-dipping limestone and argillite of the Triassic Lewes River Series (unit 5, Bostock and Lees, 1938). The sediments are intruded by a feldspar porphyry stock of Jurassic or younger age and are converted to skarn at the contact. Patchy bornite, chalcopyrite and lesser pyrite are present within the skarn. Tertiary dykes of quartz porphyry and andesite intrude the older rocks.

Current Work and Results:

Geological mapping was carried out on the property in 1972. Four separate showings were discovered consisting mainly of patchy bornite, chalcopyrite, and minor pyrite in calcite-diopside-epidote-garnet skarn. Chalcopyrite and bornite were also noted in closely-spaced quartz veins within the feldspar porphyry intrusive.

DAWSON RANGE

PDY GROUP  
Phelps Dodge Corporation of  
Canada Limited  
404 - 1112 West Pender Street  
Vancouver 1, British Columbia.

Copper, Lead, Zinc  
115 I 5  
(62°25'N, 137°55'W)

Reference: Bostock (1936);

Claims: PDY 1, 2, 3, 5, 7, 33-48

Location and Access:

The property is on the west side of the southern fork of Hayes Creek, near its headwaters, on the east flank of Apex Mountain. Helicopters have been employed from the Casino airstrip or from the Minto airstrip in the past. A winter road to the lower courses of Hayes Creek was also used.

History:

The claims were staked over copper-lead-zinc anomalies discovered during reconnaissance geochemistry in 1969. The property is adjacent to the west boundary of the FROG group.

Description:

The claims cover a plug of biotite quartz monzonite of variable composition and grain size, enclosed by Mount Nansen volcanics that show only mild thermal alteration (minor chlorite and epidote). The granite margins show an increased amount of hornblende and pyrite with a concomitant decrease in biotite. Fine quartz veins and minor amounts of sphalerite and galena are present in the contact zone.

Younger rhyolite dykes up to 20 feet wide trend north-northeast and show trace amounts of copper, molybdenum and zinc associated with minor iron sulphides.

WET CLAIMS  
Minto Mining Limited  
c/o Alrae Engineering Limited  
846 West Hastings Street  
Vancouver, British Columbia

Copper  
115 I 7  
(62°17'N, 136°37'W)

Reference: Bostock (1934).

Claims: WET 1-33, 35-48

Location and Access:

The claims are 18 miles northwest of Carmacks and three miles southeast of the Williams Creek property. The area is accessible by gravel road from Carmacks.

History:

The claims were staked in the summer of 1971 as part of the activity stimulated by exploration on the nearby Williams Creek property.

Description:

The area is underlain by granodiorite (Bostock, 1934).

Current Work and Results:

During June and early July of 1972 the company completed a geochemical copper survey of much of the claim group. A total of 1,084 soil samples were taken on east-west lines 400 feet apart. Sampling interval was 100 feet on the west side of a central north-south baseline and 200 feet on the lines east of the baseline. The survey defined several small but distinct anomalies.

ORI  
NRD Mining Limited  
305 - 535 Thurlow Street  
Vancouver, British Columbia.

Copper  
115 I 11  
(62°42'N, 137°16'W)

Reference: Bostock (1936).

Claims: ORI 1-64

Location and Access:

The claims are 15 miles west of Minto. Access is by helicopter from the Klondike Highway at Minto.

History:

The claims were staked in october of 1971. Several small pits and trenches were found in the course of the 1972 work; believed to date from about 1900.

Description:

Outcrop is scarce, probably less than one per cent. The predominant rock type is a medium to coarse-grained biotite-hornblende granodiorite, similar to that on the MINTO claims, four miles to the northeast. A weakly developed foliation of mafic minerals trends north to northwest. Foliation-parallel quartz veins are present; aplite and simple pegmatites are common. Alteration involves weak chloritization of hornblende grains and minor epidote veining. Fragments only of schistose hornblende-biotite gneiss, similar to the rocks which are mineralized with copper on the MINTO claims, were found. The northeast part of the property is underlain by Tertiary Selkirk volcanics - vesicular basalt with minor breccia and tuff having rare, disseminated pyrite.

Current Work and Results:

During the last week of August, 1972, geological mapping and geochemical sampling were done on the claim group. Geochemical samples were taken from the B or B & C soil horizon at 400-foot intervals on lines 400 feet apart and analysed for copper, molybdenum and silver. No copper anomalies were detected and of the few assays above threshold, most were over the volcanic rocks of slightly higher copper background near faults having some pyrite.

PELLY  
Occidental Minerals Corporation  
of Canada  
801, 161 Eglinton Avenue East  
Toronto 12, Ontario

Copper  
115 I 14  
(62°49'N, 137°18'W)

Reference: Bostock, 1936, G.S.C. Mem. 189

Claims: PELLY 8,10,12, 22-32, 34,36, 45-60, 64-94; DARY 1-20

Location and Access:

The property is situated at the junction of the Pelly and Yukon Rivers, largely on the circular area outlined by the last bend in the Pelly River. It can be reached by a 33 mile road on the north side of the river, from Pelly Crossing to Pelly River Ranch, by a 35 mile road from Minto to the claims on the south side of the river, or by river boat.

History:

The claims were staked late in the 1970 exploration season on the basis of stream geochemistry done earlier that year.

Description:

The western half of the plateau area within the river bend is underlain by granites and the eastern portion by older, Mount Nansen volcanics and Yukon Group metasediments. The granitic rocks consist of granodiorite, quartz diorite and granite; the Mount Nansen Group is represented by andesite, dacite, and pyroxenite. The Yukon Group rocks consist of chlorite schist, quartzite and quartz sericite schist. Younger basic dykes, gabbro to amygdaloidal basalt, intrude the older rocks.

Calcite veins occur in the chlorite schist, and quartz-calcite veins are present in the area of granitic rocks. The alteration products chlorite, epidote and clay minerals, are abundant in the hornblende-bearing intrusive rock. Xenoliths of andesite and pyroxenite are scattered throughout the granites.

Sparsely distributed pyrite, chalcopyrite and minor chalcocite occur mainly in the western portion of the granitic rocks.

Current Work and Results:

Geological mapping and soil geochemistry for copper, zinc and molybdenum were completed early in the 1971 season, and magnetometer and I.P. surveys were done in the fall.

Geochemical anomalies, supported by the geophysical surveys were recognized on the northern and southern flanks of the plateau. In 1972, the most favourable ground was tested with three diamond drill holes, having a total footage of 1,400 feet.



WILLIAMS CREEK  
Dawson Range Joint Venture  
c/o Archer, Cathro and Associates Limited  
685 Two Bentall Centre  
Vancouver, British Columbia.

Copper  
115 1 7  
(62°21'N, 136°42'W)

References: Bostock (1936a); Abbot (1971); Tempelman-Kluit (1973).

Claims: BOY, WAR, WILL, MAN, MAC, DUN, TODAY, ZORO, a total of 420 claims

Location and Access:

The property is four miles southwest of the Yukon River, 20 miles northwest of Carmacks. It is reached by an eight mile tote road, built in 1971, starting from Mile 20 on the Carmacks-Freegold road.

History:

Reports of copper in the area date back to 1887; claims were staked in 1898 on Williams and Merrice creeks and a few tons of material from copper-bearing quartz veins were shipped in 1917. Modern work began in 1970 with the discovery by G. Abbot, Dawson Range Joint Venture, of mineralized outcrops immediately north of Williams Creek (Abbot, 1971) on the BOY claims, held under option from G. Wing and A. Arsenault of Whitehorse.

Work that season consisted of continued prospecting, reconnaissance geochemistry and grid soil sampling resulting in the staking of additional adjacent claim blocks. The two showings were bulldozed, trenched and tested with two X-ray diamond drill-holes totalling 103 feet.

Description:

The Williams Creek property is underlain by medium to coarse-grained biotite-hornblende granodiorite (unit 10, Bostock, 1936a) lithologically identical to certain granitic rocks found in the Aishihik Lake map area (unit 3, Tempelman-Kluit, 1973). Within these granitic rocks are planar, strongly foliated gneissic zones trending north-northwest parallel with the Teslin lineament. The No. 1 (discovery) zone is a biotite rich, quartz-feldspar gneiss.

Sulphide mineralization is simple, the primary minerals being chalcocite and bornite in a 2:1 ratio, occurring as 0.1 to 0.2 mm interstitial grains, elongate, parallel with the foliation, and concentrated in bands, also parallel with the gneissic foliation. At depth the primary sulphides are altered to chalcocite. A prominent zone of surface oxidation is present in which most of the copper occurs as malachite and azurite and in an amorphous mixture of copper and iron oxides referred to as pitch copper (Abbot, 1971).

### Current Work and Results:

During 1971 the joint venture partners continued prospecting, geochemical surveying and geological mapping of the property. Grid geochemistry was done at 200 foot intervals on lines 800 feet apart, and 14,000 feet of diamond drilling were completed.

The No. 1 zone was delineated as a north-northwest trending planar body some 100 feet thick and 1,600 feet long, dipping 70° to the east. It is terminated at the ends by faults. Grade is persistent with depth, one 80 foot intersection containing 1.5 per cent copper 700 feet below surface. Later drilling, targeted on combined geochemical and EM-16 anomalies or on geochemistry and bulldozed trenches, penetrated mineralized zones which were too low in grade (about 0.1% copper) to be of economic interest. In all, 13 zones were trenched or drilled. The 1972 drilling, 5,000 feet, was aimed largely at delineating the No. 4 zone.

BAY	Copper
Hudson's Bay Oil and Gas Company Limited	115 I 7
320 - 7th Avenue Southwest	
Calgary 2, Alberta.	

Reference: Bostock (1936).

Claims: BAY 1-204

### Location and Access:

The property straddles Hoochekoo Creek about three miles north of the Dawson Range Joint Venture Williams Creek property to which there is summer road access. Helicopter was used during the 1971 season.

### History:

The 204 BAY claims were staked late in 1970 over favourable ground to the north of the Williams Creek property.

### Description:

Mount Nansen Group volcanics underlie the northeast part. Amphibolites occur where porphyritic granite cuts the andesites. Two leucocratic granite stocks have associated quartz veins and pegmatite dykes. A fresh basaltic dyke is probably of Carmacks volcanics age. Locally, Laberge conglomerate outcrops.

### Current Work and Results:

During 1971, reconnaissance geological mapping, soil geochemistry and a ground magnetic survey were followed by detailed soil sampling and trenching of the copper anomalies demonstrated in the initial work in the northeast part of the property. In the diamond drilling program, one hole, targeted on a combined I.P.-gravity feature, penetrated zones of pyrite and pyrrhotite with minor lead and silver content in phyllite and phyllitic quartzite.

The 1971 work consisted of structural studies and soil geochemistry on the northern claim blocks.

TRI and TOP GROUPS  
Kennco Explorations (Western) Limited  
One Bentall Centre  
Suite 730 - 505 Burrard Street  
Vancouver 1, British Columbia.

Molybdenum, Silver,  
Gold  
115 I 3  
(62°15'N, 137°25'W)

Reference: Bostock (1936).

Claims: TRI 1-98; TOP 1-120

Location and Access:

The claims are immediately east of Tritop Peak (6,079 feet), about 40 miles west-northwest of Carmacks. Besides helicopter from Carmacks, access is made by a secondary road from Carmacks to Mount Nansen or to Mount Freegold (30 to 35 miles), and the remaining 15 miles by helicopter.

History:

The initial TRI and TOP claim groups were staked in 1970.

Description:

The rock types in the area are pink granite, granite porphyry, rhyolite (quartz, feldspar porphyry) andesite porphyry, dacite and granodiorite. Age relationships are uncertain.

No sulphide minerals other than pyrite were seen; garnet-magnetite-pyrite occurs on fractures near granitic intrusions.

Current Work and Results:

Initial soil sampling in 1971 demonstrated silver, molybdenum and gold anomalies. More detailed work was done on the coincident molybdenum-gold anomalies.

TASLAR GROUP  
Taseko Mines Limited  
248 Second Avenue  
Kamloops, British Columbia

Copper  
115 I 7  
(62°20'N, 136°37'W)

Reference: Bostock (1936a).

Claims: TASLAR 2, 4, 6, 8, 10, 12, 17-22, 27-60

Location and Access:

The claims about the Williams Creek property to the north, and lie on the divide south of Williams Creek. Access is by a 3.6-mile road which turns off the Williams Creek tote road five miles north of the Carmacks-Freegold road.

History:

The property was staked early in 1971.

Description:

The claims, underlain by porphyritic granitic rocks, lie two miles west of recognizable Mount Nansen volcanics. Remnants

of Tertiary Carmacks volcanics are found adjacent to the property.

Current Work and Results:

Soil geochemistry demonstrated copper anomalies. Trenching and further geological mapping were recommended by the consultant.

TK GROUP  
Mitsubishi Metal Corporation  
No. 2766 - 200 Granville Street  
Vancouver 2, British Columbia.

Copper  
115 I 7  
(62°23'N, 136°40'W)

Claims: TK 1-8

Location and Access:

The claims are 20 miles northwest of Carmacks. Access during exploration was by helicopter from Carmacks and from Williams Creek.

History:

The claims were staked over a negative magnetic anomaly, during the rush associated with the Casino copper-molybdenum discovery.

Description:

The property is described with the Williams Creek property of Dawson Range Joint Venture.

Current Work and Results:

During the 1971 season, a geochemical soil survey was completed with samples taken at 250 foot intervals on lines 500 feet apart. Prior to the 1972 season the property was optioned to Dawson Range Joint Venture, holders of the surrounding ground. This group completed one diamond-drill hole.

MINTO	Copper
American Smelting and Refining Company	115 I 11
Canadian Division	(62°36'N, 137°14'W)
504 - 535 Thurlow Street	
and	
Silver Standard Mines Limited	
808 - 602 West Hastings Street	
Vancouver, British Columbia	

Reference: Bostock (1936).

Claims: MINTO 1-73, 75-79, 94-97 Fr

Location and Access:

The MINTO claim block is 12 miles west of Minto and six miles south of the Yukon River. During 1971 access was by helicopter. In the spring of 1972, fuel and heavy equipment were brought to the property over a tote road from Minto along the northwest side of the Yukon River, across an ice bridge at Ingersoll Islands and south to the claims on a tote road. An airstrip 2,300 feet long was built on the property during August, 1972.

History:

The MINTO claims were staked by Silver Standard Mines Limited during the 1971 field season on the basis of a reconnaissance geochemical stream silt survey.

Description:

The area is underlain by rocks of a granitic suite, (unit 10, Bostock, 1936) ranging from quartz diorite to granite, within which are biotite-rich zones or layers several hundred feet wide trending northwest and dipping gently to moderately northeast. The gneisses are roughly similar in composition to the non-foliated rocks, being slightly higher in quartz and orthoclase and lower in plagioclase. Primary mineralization is simple, consisting of chalcopyrite, bornite (ratio 10:3) and rare chalcocite, essentially restricted to the gneissic zones, largely as finely disseminated grains (0.1 mm) but including irregular masses up to 3 cm in length locally aligned parallel with the foliation. Secondary minerals - malachite, chalcocite, tenorite and azurite are present in an oxidation zone of variable thickness. Below the zone of oxidation the secondary minerals are present in shear and fault zones.

Current Work and Results:

During the 1971 field season, geological mapping, grid geochemistry and geophysics (magnetometer, E.M. and I.P.) were conducted on the property. During October, 3,600 feet of diamond drilling was done in seven holes. The drilling was continued in June and July of 1972, with a further 13 holes totalling 6,100 feet. Because of the limited outcrop of less than 2 per cent and shallow overburden over much of the area, bulldozer trenching was done extensively; 57 trenches totalling 20,800 lineal feet with an average depth of six feet were mapped and sampled. Further grid geochemistry was completed. The geophysics was not



effective in accurately delineating sulphide zones. The trenching and two seasons of diamond drilling outlined four separate zones of low-grade copper.

DEF CLAIMS  
United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory.

Copper, Silver,  
Molybdenum  
115 I 11  
(62°38'N, 137°15'W)

Reference: Bostock (1939).

Claims: DEF 1-78

Location and Access:

The DEF claims are 50 miles northwest of Carmacks, 13 miles west of Minto on the Klondike Highway. Access during 1971 was by helicopter but one can walk to the property from the Yukon River roughly four miles northeast of the claims.

History:

Malachite was found in 1971, north of the Silver Standard/Asarco MINTO property which was discovered using stream sediment geochemistry. No previous work appears to have been done in the area aside from regional geochemical surveys.

In 1971, soil geochemistry, EM, IP, magnetic and geological surveys were undertaken. Grab samples assaying up to 0.6 ounces of silver per ton and 1.98 per cent copper were obtained. Geochemistry and geophysical orientation studies further delineated the anomalies and indicated a northwest trending shear zone.

Description:

There is little rock exposure in the area. It appears to be underlain mainly by quartz-feldspar-biotite gneiss, with variable amounts of hornblende and biotite plus minor schist, porphyritic granodiorite, monzonite, quartz monzonite, fine-grained schistose intrusive rocks and dykes of aplite and pegmatite.

Malachite and minor azurite are present in surface showings and bulldozer trenches.

Current Work and Results:

In 1972, the company completed a geochemical survey of the claim group and put in about 2,000 feet of bulldozer trenching across the main mineralized zone.

MINTO PROPERTY  
Dawson Range Joint Venture  
c/o Archer, Cathro and Associates Limited  
P.O. Box 4127  
Whitehorse, Yukon Territory.

Copper  
115 I 11  
(62°42'N, 137°12'W)

Reference: Bostock (1936a).

Claims: PAL 1-65, 66Fr-72Fr; KAP 1-2; BEN 1 Fr-14Fr, 27-28,  
29Fr-53Fr, 54-58, 59 60Fr, 66Fr-72Fr

Location and Access:

Claims are about ten miles west of Minto; access in 1972 was by helicopter. A winter road runs along the creek, at the north end of the property. The claims are adjacent to the Silver Standard/Asarco MINTO claim group.

History:

The property was staked in September, 1971, by G. Wing and optioned in October, 1971, to Dawson Range Joint Venture.

Description:

Outcrop, occurring sparingly on ridges and in stream cuts, is mostly granodiorite of the Klotassin Batholith capped by Tertiary Carmacks volcanics in the southwest corner. The biotite-hornblende granodiorite is porphyritic, with magnetite and epidote present as accessory minerals. It is weakly foliated and cut by aplite dykes.

The Carmacks volcanics include basalt, andesite and porphyritic dacite. Chlorite occurs in vesicles. On the western part of the property, copper occurs in northwest trending, biotite-quartz rich gneissic zones.

Malachite staining, minor amounts of chalcopyrite, bornite and chalcocite and traces of pyrite and molybdenite were observed.

Current Work and Results:

In 1972, geological mapping and soil geochemistry outlined one copper anomaly to the west, in an area of copper stained gneiss.

AL CLAIMS

Northair Mines Limited and  
Bow River Resources Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia.  
V6C 1N5

115 I 11  
(62°39'N, 137°08'W)

Claims: AL 1-24

Location and Access:

The property, on the left bank of the Yukon River, is four miles east of the Silver Standard and Keno Hill properties and eight miles northwest of Minto.

History:

The property was first staked as AL claims in October, 1971, by Northair Mines Limited and Bow River Resources Limited with the ROD claims being added to the north in September, 1972.

Description:

Canyon exposures and pebbles from soil samples indicate that the area is underlain by coarse-grained granitic rocks, principally biotite-hornblende quartz monzonite and diorite. Hornblende altered to biotite and magnetite changing to red hematite stain appear to be the only alteration reactions.

No sulphide minerals were found on the claims.

Current Work and Results:

The claims were explored by grid soil sampling in 1972. Weakly anomalous copper values indicate a northwest linear feature about 2,000 feet long. Two isolated spot highs were recommended by the consultants for bulldozer trenching.

WAIN GROUP

Wainoco Oil Limited  
312 - 4th Avenue Southwest  
Calgary, Alberta.

115 I 11  
(62°38'N, 137°20'W)

Claims: WAIN 1-64

Location and Access:

The claims are in the Wolverine Creek drainage basin about three miles west of the copper occurrences held by United Keno Hill Mines and Silver Standard/Asarco and ten miles south of Pelly River mouth. Access is by helicopter.

History:

The claims were staked in September 1971.

Description:

Outcrop and near-outcrop float consists of coarse-grained biotite-hornblende granite of Jurassic or later age. The granite is cut by aplite dykes and is in places strongly foliated. Volcanic breccia, tuff and dark vesicular basalt belonging to the Selkirk series occurs in the west, lying unconformably on the plutonic rocks.

No copper minerals are known in the area.

Current Work and Results:

Reconnaissance soil sampling in 1972 showed no anomalous silver or molybdenum samples, although it did reveal several above threshold in copper. The copper response may be related to volcanic rocks or possibly to a glacially transported source. A weak northwest-trending linear belt of high copper assays does occur.

B, SEE GROUP

Consolidated Standard Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia.

115 I 11  
(62°40'N, 137°13'W)

Claims: B 2-12, 17-40; SEE 1-24

Location and Access:

The claims border the Yukon River about ten miles upstream from Pelly mouth and about 12 miles northwest of Minto. Access could be by boat, but helicopters have also been used. A winter road to the Silver Standard/Asarco property passes through the southernmost claims.

History:

The property was staked in October, 1971, by Adera Mining Limited in joint venture with Consolidated Standard Mines Limited.

Description:

A coarse grained biotite-hornblende granodiorite of Jurassic age is the predominant rock type. Foliation is defined by the mafic minerals and distinct banding in a quartz-rich phase. Pegmatite and aplite dykes are common. The quartz content decreases from west to east across the claims. Chloritization of hornblende and minor epidote is common.

Dense, green altered andesite occurs in the southeast and probably represents roof pendants of the Carmacks group of Tertiary age.

Current Work and Results:

Geology and soil geochemistry did not outline significant copper, molybdenum or silver anomalies in this potentially copper-bearing environment.

AZTEC, SQUAW, TLINGITS GROUP  
Trans Columbia Explorations Limited  
211 - 217 West Pender Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 J 10  
(62°45'N, 138°55'W)

References: Cairnes (1917); Craig and Laporte (1972, pp. 54-55).

Claims: AZTEC 1-151; SQUAW 1-12; TLINGITS 1-12; NEW 5-6, 103-150; GAP 1-16 (dropped in 1971 - AZTEC 1, 2, 7, 8, 9-12, 25-32, 39-42, 55-57, 62-65, 82-85)

Location and Access:

Located immediately southeast of the confluence of Coffee Creek and the Yukon River, these claims are reached by helicopter from the Casino airstrip, six miles to the west.

History:

The land was staked in 1969 for the present owners. During the 1970 season, reconnaissance and detailed soil geo-chemical surveys were carried out with encouraging results (Craig and Laporte, 1972, pp. 54-55). Recommended at that time were: an aeromagnetic survey, detailed geological mapping with emphasis on alteration and mineral zoning, an I.P. survey, ground magnetic mapping, location of diamond drill targets, trenching and drilling.

Description:

The claims are situated in unglaciated, ash-covered terrain, underlain by hydrothermally altered quartz-sericite-pyrite rock and sub-porphyrific biotite-hornblende quartz monzonite, (Cairnes, 1917), Klotassin granodiorite (Craig and Laporte, 1972), slightly altered granodiorite and light coloured porphyry. The monzonite contains disseminated chalcopyrite and quartz microveinlets with associated molybdenite.

Current Work and Results:

In 1971, no field work was reported and about 30 claims lapsed.

PRO GROUP  
Occidental Minerals Corporation of Canada  
801 - 161 Eglinton Avenue East  
Toronto 12, Ontario.

Copper, Zinc, Lead  
115 I 5  
(62°27'N, 137°46'W)

Claims: PRO 29-44, 57-72, 85-94, 96-100, 113-128, 141-156, 169, 171, 173, 175, 177, 179, 181, 183

Location and Access:

The property is east of the upper part of Hayes Creek, on the northern slope of Prospector Mountain and is accessible by helicopter from Minto, about 25 miles southeast, or from the Freegold-Carmacks road.



History:

The staking of the 196 PRO claims in 1970 resulted from a reconnaissance geochemical program.

Description:

The claims cover Mesozoic igneous rocks, minor Precambrian meta-sedimentary rocks and Tertiary volcanics. Country rock in the northeast consists of light to dark grey to white, crystalline, epidote-bearing limestone of the Yukon Group and dark green to grey-green andesite, basalt, flow breccias and amygdaloidal and tuffaceous volcanics of the Mount Nansen Group. Intrusive rocks occur in the eastern and west-central parts and have been described as syenite grading to monzonite. Clays, chlorite and tourmaline occur as secondary minerals with primary biotite and hornblende in the locally gneissic, hornblende syenite-quartz monzonite with quartz as large particles and gneissic bands. Acid dykes rich in tourmaline and quartz, cut all other rocks.

Volcanics of the Carmacks Group, in either a graben or syncline in the western part of the area, are vesicular and porphyritic, dark blue-green, dark brown and black andesite, andesitic tuff and breccia.

Minerals found are minor chrysocolla in andesite; chrysocolla, native copper, tetrahedrite, malachite, and neotocite along the syenite contact; and fine pyrite, tetrahedrite and minor enargite with malachite, fine proustite and sphalerite in the acidic dykes. Locally, minor disseminated pyrite occurs in both Mount Nansen volcanic rocks and syenite.

Current Work and Results:

During the 1971 season work consisting of geological mapping and soil geochemistry, revealed copper showings related to the Mount Nansen Group and the syenite contact.

STAR GROUP	Copper
Starbird Mines Limited	115 I 5
309 - 850 West Hastings Street	(62°26'N, 137°47'W)
Vancouver, British Columbia.	

Reference: Bostock (1936).

Claims: STAR 1-40

Location and Access:

Situated on the south flank of Prospector Mountain, about 30 air miles west-southwest of Minto, the property is accessible by helicopter.

History:

The claims were recorded in February 1970 and were surveyed by airborne magnetometer in February 1971.

### Description:

The area is unglaciated and the upland surface with round hills and prominent monadnocks is dissected by deep valleys. Regionally, bedrock consists of altered sedimentary rocks of the Yukon Group intruded by porphyritic granitic rocks of Mesozoic or later age. No detailed geology is available.

### Current Work and Results:

Aeromagnetic mapping suggests a plug-like intrusion in the centre of the project area. Soil geochemistry conducted over part of the block indicates the north-central corner of the property to be the highest in copper.

CAN, TIP, TIN, ROSS, GENE,  
GERRY, TOM and NORA GROUPS  
Acroll Oil and Gas Limited  
660 Calgary Place One  
330 - 5th Avenue Southwest  
Calgary 1, Alberta.

Copper, Molybdenum  
115 J 15  
(62°47'N, 138°57'W)  
(62° 48'N, 138°46'W)

References: Cairnes (1916); Bostock (1944); Mackenzie (1970); Craig and Laporte (1972, p. 47).

Claims: CAN, TIP, TIN, ROSS, GENE, GERRY, TOM, LIN, NORA (about 113 claims); all lapsed in 1971

### Location and Access:

The western and eastern blocks of the property are situated on Canadian Creek, four and one-half miles northwest and three and one-half miles northeast of the Casino prospect respectively and may be reached by a four-wheel drive vehicle from the Yukon River or from the Casino airstrip.

### History:

In December, 1970, the Canadian Creek-Excelsior Creek area was surveyed by airborne magnetometer to check for lithologic contacts, faults and shear zones. The previously known contact was more accurately determined but no other structures were detected. At that time, recommendations were made for a soil geochemical and I.P. survey as well as geological mapping and prospecting, if warranted.

### Description:

The claim blocks are situated on the contact zone between the Klotassin Batholith, to the south, and the older rocks, to the north. The eastern block is in meta-igneous rocks of Paleozoic age with mica, chlorite, and amphibole schists; the western block is within acidic intrusives of Mesozoic age, similar to those of the Casino area. Photo interpretation reveals linears, perhaps related to structural features (Mackenzie 1970).

Current Work and Results:

No work has been reported from the 1971 field season and the claims have lapsed.

FOLLY and RAIN GROUPS	Copper
Brewster Lake Mines Limited	115 J 15
626 West Pender Street	(62°45'N, 138°30'W)
Vancouver, British Columbia	

References: Cairnes (1917); Bostock (1944); Craig and Laporte (1972, p. 50).

Claims: FOLLY 23-32, 45-54, 67-76, 89-98; RAIN 1-9 (total of 49)

Location and Access:

The claims lie between Sunshine and Isaac creeks, about six miles east of the Casino Silver Mines property, and are reached by helicopter from the Casino airstrip.

History:

The property was staked in 1969 during the Dawson Range staking rush and soil geochemistry was performed during the 1970 field season (Craig and Laporte, 1972, p. 50).

Description:

The claims are underlain by granodiorite (Bostock, 1944) Klotassin granodiorite and, to the north, Yukon Group metasediments. In the eastern part of the claim block, bedrock is mantled by thick overburden in an area of permafrost.

Current Work and Results:

The last work on this property was done in 1970.

AXE and HILL GROUPS	Copper, Molybdenum
Montana Mines Limited	115 J 10
Box 302	(62°40'N, 138°32'W)
Whitehorse, Yukon Territory.	

References: Cairnes (1917); Bostock (1944); Craig and Laporte (1972, p. 61).

Claims: AXE 1-6; HILL 1-24 (lapsed in 1971)

Location and Access:

The claims lie adjacent to the southeast corner of the Casino Silver Mines property, on the northwest slope of Mount Cockfield ten miles from the Casino airstrip. Access was by helicopter from the Casino airstrip.

History:

Staked late in 1969, and explored by reconnaissance rock and soil sampling in 1970 (Craig and Laporte, 1972, p. 61), the claims were allowed to lapse the following year. In 1966, Nordex Exploration Limited explored the ground for silver-lead deposits.

Description:

Unglaciaded, the area is underlain by medium to coarse-grained, leucocratic granite of Mesozoic age, (Klotassin Batholith) in part bearing phenocrysts of orthoclase. Different phases of the intrusion have variable amounts of biotite, augite and hornblende.

Volcanic float (Mount Nansen Group) was found on the eastern edge of the claim group.

Current Work and Results:

The 1970 sampling revealed one geochemical anomaly. The claims were allowed to lapse in 1971.

SOMME PROPERTY	Copper, Molybdenum
Dawson Range Joint Venture	115 J 8
c/o Archer, Cathro and Associates Limited	(62°25'N, 138°28'W)
Box 4127	
Whitehorse, Yukon Territory.	
or	
685 Two Bentall Centre	
Vancouver, British Columbia.	

Reference: Craig and Laporte (1972, p. 72).

Claims: TOM 3-6, 8-10, 12, 15, 17, 19 and 20

Location and Access:

The property is located on Tom Creek, a right bank tributary of Somme Creek. In 1970 access was by helicopter from Casino airstrip.

History:

The property, discovered by reconnaissance stream sediment and soil geochemical surveys in 1969, was soil sampled and geologically mapped in 1970. Claims staked in 1970 cover areas of weak, non-coincident copper and molybdenum anomalies.

Description:

Craig and Laporte (1972, p. 72)

Minor molybdenite was found but pyrite mineralization, rock alteration or leaching that might be expected near a porphyry-type occurrence was not seen.

### Current Work and Results:

The last reported work was done in 1970.

KLOT and CHRIS GROUPS	Molybdenum, Copper
Canadian Occidental Petroleum Limited	115 J 7
801 - 161 Eglinton Avenue East	(62°18'N, 138°50'W)
Toronto 12, Ontario.	

Claims: KLOT 1-88; CHRIS 1-40

### Location and Access:

The claims are situated eight miles southwest of the junction of Klotassin River and Somme Creek. Access in 1971 was by helicopter from Wellesley Lake.

### History:

The 128 claim property was staked in 1970 following reconnaissance stream geochemistry done the same year.

### Description:

The area mapped lies on relict upland between Nisling River and Klotassin River drainages. The rock types of the area are: quartzite of the Yukon Group, a Cretaceous to Tertiary intrusive varying in composition from granodiorite in the east to quartz diorite and quartz porphyry in the west, dacite and basalt of the Carmacks Volcanics, and a Tertiary intrusive consisting of leuco-granite and quartz porphyry.

The property is underlain mostly by rocks of the younger, acid intrusion. Rocks of the older intrusion form an east-west trending ridge across the south-central part of the property. Small bodies of volcanic rocks occur in the vicinity of the older intrusion. The Yukon Group quartzite occurs as a roof pendant in the southwest part of the property.

Molybdenum and chalcopryite are common in the older intrusive. Molybdenite occurs in thin films on fractures and as rosettes along quartz veins in siliceous rocks, and is disseminated in the intrusive together with chalcopryite and pyrite.

No evidence of supergene enrichment was found and only minor malachite and chalcocite are present.

### Current Work and Results:

Work in 1971 consisted of geological mapping, prospecting and a detailed geochemical soil survey of the claim groups. Several small copper, zinc and molybdenum anomalies were outlined by the soil survey. The northeast half of the KLOT claims lapsed in September 1971.



HAYES GROUP  
Delta International Minerals Limited  
929 - 470 Granville Street  
Vancouver, British Columbia.

Copper, Molybdenum  
115 I 12  
(62°37'N, 137°55'W)

References: Bostock (1944); Craig and Laporte (1972, pp. 70-71).

Claims: HAYES 21-32

Location and Access:

Situated about 40 miles west of Minto on the east bank of Hayes Creek, the property is reached by helicopter from the International Mine Services airstrip, six miles to the southeast. Alternate access is by a 35-mile tote-road from the end of the Discovery-Carmacks road.

History:

A geochemical survey, resulting from a 1965 stream sediment anomaly, was completed late in 1969 and the land was staked. A geochemical survey was carried out in 1970 by the present owners.

Description:

The property is on a contact zone between Tertiary-Jurassic granitic bodies and schist and gneiss of the Yukon Group. A band of limestone has been traced for 2,800 feet in the northeast corner of the claims. A monzonitic porphyry, 1,000 feet by 6,000 feet, trends northwest across the central portion of the claims and an altered monzonite occupies a 1,000-foot 2,200-foot area in the southwest.

Minor disseminated pyrite occurs in both intrusive and country rock. Finely disseminated chalcopyrite and molybdenite occur in a highly altered porphyritic intrusive on the west side of Hayes Creek; the copper-molybdenum geochemical response appears to correlate with this rock type.

Current Work and Results:

The 1970 soil survey, in unglaciated terrain, shows high geochemical values for lead, silver, molybdenum and copper and was encouraging enough to warrant further work. No assessment work was recorded for the 1971 field season, however, and the claims have lapsed.

GB GROUP

Alrae Engineering Limited  
c/o Chatex Industries Limited  
1700 - 1055 West Georgia Street  
Vancouver, British Columbia.

115 I 12  
(62°35'N, 137°52'W)

References: Bostock (1936a); Craig and Laporte (1972,  
p. 74).

Claims: GB 1-96 (only GB 25-28, 39-45 in good standing early in  
1972)

Location and Access:

The claims are situated 30 miles west of Minto, at the head of Hayes Creek, equidistant from airstrips at Minto, Casino and Revenue Creek.

History:

Chataway Exploration Company Limited had the ground staked in 1969. Reconnaissance geology and soil geochemistry were done in 1970.

Description:

Little outcrop is found on this part of the partially dissected rolling uplands of the Yukon Plateau, most of the geology being inferred from float. Quartzite, schist and gneiss of the Yukon Group are overlain in places by limestone and volcanics (in part clastic), and intruded by north-trending acidic to intermediate plutonic rocks. Post erosional basic extrusives and tuffs cover part of the area.

Current Work and Results:

No significant mineralized zones or soil anomalies are known.

TAD  
International Mine Services Limited  
1601 Royal Bank Building  
8 King Street  
Toronto 1, Ontario.

Molybdenum, Copper,  
Lead, Zinc  
115 I 12  
(62°34'N, 137°55'W)

Reference: Bostock (1936).

Claims: TAD 1-216, 224, 225, 227, 228 staked from August of 1969 through December of 1970

Location and Access:

The property is on Hayes Creek, on the north side of Prospector Mountain, on the northeast side of the Dawson Range, 35 miles west of Minto.

Access during exploration was by truck to Minto, at Mile 148 of the Klondike Highway, then by fixed wing aircraft to the Revenue Creek air strip. Helicopters were used for logistical

support on the claims and for the trip from Minto when the Revenue Creek strip was unserviceable. Drilling equipment and some fuel supplies were brought in by way of a 30-mile tote road off the Freegold-Carmacks road, a total distance from Carmacks of 65 miles

### History:

Some placer exploration took place at the turn of the century, but there was little activity until the current exploration began. The discovery leading to the staking of the TAD group was made by International Mine Services personnel in August of 1969 in the course of the regional geochemical surveying and prospecting program of the Dawson Range.

### Description:

Geology of the TAD property is essentially that of Yukon Group metamorphic rocks intruded by Mesozoic granitic rocks and partly overlain by Carmacks volcanics and intruded by young porphyries.

The oldest rock unit consists of quartz-mica schist and quartzite of the Yukon Group. The schist occurs on the southern boundary of the property. Adjacent to these rocks are Yukon Group gneisses. A distinctly sheared, recrystallized granite is identified on the north-western and south-eastern part of the property (Bostock, unit 10, Map 340A). A medium-grained quartz monzonite with slight metamorphic effects is also recognized and considered part of the older granitic suite. Carmacks volcanics occupy the northeast part of the property, on the north side of Hayes Creek and consist of basalt, basalt-porphyry and breccia. Tentatively, the youngest rocks are quartz monzonite porphyry and biotite granite porphyry.

### Current Work and Results:

The initial discovery of disseminated galena and sphalerite was made in a gossan-covered outcrop of altered quartz monzonite porphyry in Hayes Creek and 60 claims were staked. Soil geochemical samples were taken along claim lines and on traverses at right angles to these. With recognition of two significant anomalies, more claims were added and a sampling grid established. Samples were taken at 100-foot intervals on lines 800 feet apart throughout the property and 400 feet apart in areas shown to be anomalous by the initial sampling. Further sampling was done on lines 200 feet apart in core areas considered highly anomalous. A total of 6,000 soil samples were analysed from the TAD claims.

Three distinctly anomalous zones were found. The first, an irregular molybdenum anomaly with random, weak copper highs, extends for one and one-half miles between 2,900 and 3,000 feet in elevation, on a smooth ridge east of Hayes Creek. The second is a broad lead-zinc anomaly with a coincident I.P. chargeability high and a magnetic high on the south side, the strike length of the geochemical anomaly being 4,800 feet. The third anomaly, also lead-zinc, occurs near the southwest end

of the cut grid and has an east-west strike length of 6,500 feet.

Although there is less than one per cent outcrop, surface scree and residual material is fairly abundant and the claims were mapped geologically at a scale of one inch equals 600 feet.

The anomalies were tested with 18 diamond drill holes totalling 8,800 feet. Five holes were drilled on the molybdenum zone, the deepest being 750 feet. The coarse-grained quartz monzonite has propylitic alteration and contains quartz veinlets up to three inches thick. Flakes of molybdenite occur in the veinlets and, rarely, in the quartz monzonite with pyrite and chalcopyrite.

Zone 2, the more promising lead-zinc anomaly, was tested with 13 holes, the deepest, 637 feet. The host rock is faulted, brecciated, typical argillically-altered quartz monzonite porphyry, containing disseminated galena and sphalerite.

Assays of residual material in bulldozer trenches over the molybdenum zone gave modestly higher results than the soil sampling. Lead-zinc trench assays were significantly higher, with lead typically two to four times the value obtained from auger sampling of the B and C soil horizons, 12 to 18 inches below the surface. In all, 25 bulldozer trenches were cut.

Results of the exploration program - a combination of geological mapping, geochemical and geophysical surveying and diamond drilling - suggest that a porphyry mineral deposit may be present. Possibly, the initial drilling, to roughly 700 feet, in the lead-zinc zone with its abundant argillic alteration was on the peripheral zone of such a deposit. A recommendation was made for further diamond drilling and modest extension of the geophysical and geochemical grids by the company geologists.

CHART  
Charta Mines Limited  
c/o R.G. Hilker Limited  
Box 4008  
Whitehorse, Yukon Territory.

Copper, Molybdenum  
115 I 4  
(62°15'N, 137°45'W)

References: Cairnes (1916); Bostock (1936; 1944); Johnston (1937).

Claims: CHART 1-49

Location and Access:

Situated on a bend of the Klaza River at its confluence with Cindy Creek below Magpie Creek, the claim group is reached by helicopter from Minto airstrip 40 miles to the northeast. Casino airstrip is 45 miles to the northwest and the nearest tote trails are within 15 miles of the property.

History:

The showing was first reported by Bostock in 1936 and was first staked in 1969 as the JUDY group during the Dawson Range

rush. The claims lapsed and the ground was restaked and obtained by the present owners early in 1971.

#### Description:

The property is underlain by Jurassic Mount Nansen rocks intruded by a Tertiary granite-granodiorite complex. A prominent limonite gossan is present.

The Mount Nansen rocks consist of fine-grained dark grey to black andesite with minor dacite and basalt. In places they are porphyritic and locally epidote and chlorite are recognized. Pyrite is abundant in the ground mass and on fractures as well as in minor, intercalated beds of sandstone, siltstone, arkose and argillite. The intrusive rocks are typically coarse-grained hornblende granodiorite to biotite granite with a later porphyritic phase present. Minor aplite dykes cut these rocks. Pyrite occurs as films and on fractures in both the volcanic and granitic rocks. Minor malachite stain is present.

#### Current Work and Results:

During the 1971 field season, Charta Mines Limited geologically mapped and soil sampled the property and completed a magnetometer survey. A coincident copper-molybdenum anomaly also corresponds with a magnetic low and parallels the magnetic trends. It is interpreted as being caused by a late porphyritic dyke in the granitic intrusives.

ALP	Copper
B.A. Copper Mines Limited	115° H 9
1403 - 1030 West Georgia Street	(61°37'N, 136°11'W)
Vancouver, British Columbia.	

Reference: Green (1966, pp. 44-46).

Claims: ALP 3-73

#### Location and Access:

The ALP claims surround a block of six leased claims known as the Mack's prospect, located about eight miles southwest of Mile 72 on the Klondike Highway. An 11-mile winter road, built to the property in 1965, is passable to within five miles of the ALP group. The claims lie along a north-trending ridge on the plateau between Nordenskiöld River and Kirkland Creek.

#### History:

The leased claims (Mack's) were explored prior to 1908 with a trench and a 38 foot adit. Late in 1964, Arctic Mining and Exploration optioned the Mack's claims, staked additional ground and explored the showing with four diamond-drill holes totalling 860 feet (Green, 1966). Newmont Mining Corporation and Alice Lake Mines Limited held the ground, explored it with magnetic and geophysical surveys, trenched the resulting anomalies and subsequently allowed the claims to lapse.



Description:

The claims lie near the contact between Triassic andesite and Cretaceous quartz monzonite, with most of the property being underlain by the dark green andesite; the monzonite occurring on the western edge.

Current Work and Results:

The ALP claims were staked in late 1971 and early 1972 by Armand Arsenault of Whitehorse and optioned to South Yukon Joint Venture. The property was geologically mapped at a scale of one inch equals 500 feet and soil sampled at intervals of 200 feet on east-west lines 400 feet apart. Samples were analysed for copper, molybdenum and silver by AA methods. A soil anomaly some 1,000 feet by 1,700 feet occurs on ALP 14 and 18 claims, on a hill 4,260 feet in elevation. Chip samples of andesite from the area of the anomaly showed traces of disseminated chalcopyrite under microscopic examination. Bleached, pyritized, and weakly leached zones, up to 50 feet by 200 feet, are also present.

MOUNT NANSEN  
Area Exploration Corporation Limited  
555 South Flower Street  
Los Angeles, California  
U.S.A. 90071

Copper, Molybdenum,  
Gold, Silver  
115 I 3  
(62°03'N, 137°07'W)

References: Bostock (1936); Craig and Laporte (1972, pp. 88-89).

Claims: 347 claims

Location and Access:

The property, 30 miles west of Carmacks, is accessible by a 40-mile road which leaves the Carmacks-Laforma road about one mile west of the Nordenskiöld River bridge at Carmacks.

History:

Sulphide-bearing vein structures have been known since before 1946 when the Brown-McDade property was explored. Following discovery of the Webber system in 1962, and additional showings in 1963, by Mount Nansen Mines Limited, underground exploration was done by Peso Silver Mines Limited on the Webber and Heustis prospects in 1964, and on the Webber, Heustis and Brown-McDade in 1965 and 1966. The Heustis property was brought into production in September of 1968 and closed in April of 1969, milling from 70 to 100 tons per day.

Description:

Quartz-biotite schist and gneiss (unit 1, Bostock, 1936) are overlain by Mount Nansen basic volcanics and pyroclastics (unit 7, op. cit.) and both are intruded by quartz-feldspar porphyry bodies. The gold-silver bearing vein systems, targets of the earlier exploration, cut altered quartz-feldspar porphyry and the schist and gneiss. The sulphide assemblage is arsenopyrite, pyrite, galena, and sphalerite with minor amounts of

silver minerals in a largely quartz gangue.

Current Work and Results:

The Area exploration targets were the altered quartz-feldspar porphyries. During 1971, the company did 3,000 feet of rotary drilling and 2,000 feet of diamond drilling. During 1972 they did 6,000 feet of diamond drilling in 10 holes.

NISLING RANGE

THATCH GROUP  
Canadian Occidental Petroleum Limited  
801 - 161 Eglinton Avenue East  
Toronto 12, Ontario.

Copper, Zinc,  
Molybdenum  
115 H 12  
(61°35'N, 137°38'W)

Claims: THATCH 1-42

Location and Access:

Aishihik Lake and the end of the Aishihik road are five miles to the east of the claims. Access is by helicopter.

History:

The claims were staked in 1971 following a reconnaissance geochemical program, which revealed stream sediment copper, zinc and molybdenum anomalies.

Description:

The area has undergone glaciation from both the continental Reid ice sheet and the local, younger Ruby ice sheet. Quartzite, marble and minor schist of the Yukon Group underlie the area and are cut by a porphyritic granite. The sedimentary rocks are in places ferruginous, as indicated by limonitic weathering. They have been metamorphosed to garnet grade in places, with garnetiferous biotite-chlorite-schist being locally abundant. The Mesozoic intrusives, minor in extent, are pink to yellow-white, medium-grained, leucocratic granite. The granite contains quartz and orthoclase phenocrysts, and in some places pyrite.

The metasedimentary rocks strike north-northwest, dip 35° east. No significant showings were found on the claims.

Current Work and Results:

Some 870 soil samples taken at 800-foot intervals, from the B horizon below the recent volcanic ash, showed the following: high copper readings over micaceous quartzite with marble, high zinc readings over pyritiferous micaceous quartzite, and high molybdenum readings over quartzite and possibly over granite.

TYR GROUP  
Canadian Occidental Petroleum Limited  
801 - 161 Eglinton Avenue East  
Toronto 12, Ontario.

Copper, molybdenum  
115 G 16  
(61°50'N, 138°10'W)

Claims: TYR 1-96

Location and Access:

The claims are five miles east of the RYE claims on Tyrrell Creek and 42 miles northeast of Burwash Landing. Access is by helicopter from Burwash Landing.

History:

The TYR group was staked in 1971, as a result of regional geochemistry done that year.

Description:

The claims are in unglaciated terrain and are underlain by flat-lying quartzite and marble of the Yukon Group, and several sills of porphyritic andesite of the Nisling Range volcanics. The northwestern and southeastern sectors have been intruded by granodiorite and the northern by an alaskite stock.

In the north a skarn zone, 1,800 feet in diameter, encloses an area of chalcopyrite showings, which occur with tremolite in quartz-filled fractures in quartzite.

Current Work and Results:

Geological mapping and rock and soil geochemistry outlined copper-zinc mineralization in quartzite and molybdenum-bearing quartz veins in granodiorite, as well as a hornfels skarn zone. The consultants recommended further prospecting in the vicinity of the granodiorite stock in the southeast part of the property, and more detailed geology and geochemistry on the west half of the property.

ONI Group  
Canadian Occidental Petroleum Limited  
801 - 161 Eglinton Avenue East  
Toronto 12, Ontario.

Molybdenum, Copper  
115 G 15  
(61°53'N, 138°39'W)

Reference: Muller (1967).

Claims: ONI 1-113

Location and Access:

Immediately west of MAX group, covering an L-shape ridge southeast of Onion Creek in the Nisling Range, the claims are 43 miles north of Burwash. Access is by helicopter.

History:

The ONI group was staked in 1971 as a result of regional stream sediment geochemistry for copper and molybdenum done that year.

Description:

The claims, in unglaciated terrain, are underlain by banded quartzite of the Yukon Group, which is cut by numerous rhyolite dykes and by a large alaskite pluton in the south. Porphyritic basalt dykes, displaying zeolites and cut by north trending felsic dykes, are present in the northwest. A circular, buried, granitic intrusive is indicated in the central part of the claims, near a known quartz monzonite porphyry rock mass.

Topographic lineaments have been interpreted to indicate early northwest faults cut by northeast fractures and faults.

Minor molybdenite, found along fractures and quartz stringers in a small quartz monzonite mass in the centre of the property, and minor chalcopyrite in quartzite are the only indications of economic minerals. The quartzite and rhyolite locally contain minor pyrrhotite.

Current Work and Results:

Soil geochemistry has outlined two anomalous zones: one related to an intrusion east of the property and the second to quartzite and rhyolite along a northeast-trending fracture zone. No economically significant showings were found.

BIR  
Canadian Occidental Petroleum Limited  
Minerals Division  
801 - 161 Eglinton Avenue East  
Toronto, Ontario.

Copper, Zinc,  
Molybdenum  
115 G 9  
(61°40'N, 138°20'W)

Reference: Muller (1967)

Claims: BIR 1-214

Location and Access:

The property is on a ridge north of Talbot Creek, 31 miles northeast of Burwash Landing and 12 miles east of the north end of Talbot Arm. Access during 1972 was by helicopter from Burwash Landing.

History:

The BIR claims were staked in September, 1971, to cover an area anomalous in copper, molybdenum and zinc discovered during a geochemical reconnaissance survey.

Description:

Stocks of Nisling Range Alaskite (unit 7, Muller, 1967)

and Nisling Range Granodiorite (unit 6, Muller, 1967) intrude Yukon Group metasediments (unit 1, Muller, 1967). Numerous rhyolite dykes, mafic and quartz-porphyry dykes, breccia pipes and small bodies of diorite and quartz-feldspar porphyry intrude the alaskite and older rocks.

The Yukon Group rocks occurring around the margins of the alaskite stock and as erosional remnants or roof pendants, consist of banded, biotite quartzite; garnet-mica schist; thinly banded, medium-grained marble; and skarn. The quartzite contains disseminated pyrite and pyrrhotite as well as small veins carrying chalcopyrite, molybdenite and galena. Chalcopyrite is also disseminated locally in the skarn.

Locally the alaskite consists of five phases. The oldest is a coarse-grained, light coloured granite with feldspar forming 55% and smokey quartz phenocrysts 40%, with minor magnetite and chlorite. This intrudes a fine-grained granite and a medium- to coarse-grained granite, with biotite, chlorite, hornblende and magnetite as accessory minerals. The fourth phase is a porphyritic granite with coarse feldspar phenocrysts. The youngest phase is a fine- to medium-grained granite with clear quartz fracture fillings.

Minor amounts of molybdenite occur with the quartz stringers. Pyrite and pyrrhotite are sparsely disseminated in the younger dykes and sills.

#### Current Work and Results:

During 1972 the company did detailed geological mapping, soil geochemistry and rock geochemistry. The soil survey defined 14 anomalies, several of which were coincident for copper, zinc and molybdenum. The major soil anomalies are related either to sulphide occurrences or to high geochemical values in the underlying rocks.

RYE  
Canadian Occidental Petroleum Limited  
Minerals Division  
801 - 161 Eglinton Avenue East  
Toronto, Ontario.

Copper, Zinc,  
Molybdenum  
115 G 16  
(61°50'N, 138°25'W)

Reference: Muller (1967).

Claims: RYE 1-54

Location and Access:

The property lies to the north of Dwarf Birch Creek, 16 miles northeast of the north end of Talbot Arm. Access is by helicopter from Burwash Landing, 38 miles to the southwest.

#### History:

The claims were staked during September, 1971, to cover copper, zinc and molybdenum stream sediment anomalies discovered during a reconnaissance geochemical survey.



### Description:

The northeast half of the property is underlain by porphyritic andesite, basalt and rhyolite of probable Triassic age (unit 4, Muller, 1967). These are in contact to the southwest with Yukon Group quartzite and minor interbedded marble (unit 1, Muller, 1967). Two small granodiorite bodies intrude the meta-sediments in the southeast part of the property.

The quartzite is fine- to medium-grained and massive, consisting of sericite and quartz with small amounts of biotite and muscovite. Traces of pyrite and pyrrhotite produce brown to black staining on weathered surfaces.

The basalt and andesite cover most of the northeastern part of the property, and contain plagioclase, hornblende, biotite and quartz phenocrysts in a fine-grained matrix.

The rhyolite occurs on the eastern half of the property between the quartzite on the south and the basalt-andesite on the north.

Several northwest-trending topographic lineaments cross the area of quartzite outcrop. Fractured quartzite near one of the lineaments contains small amounts of pyrite and pyrrhotite. Traces of azurite are visible along the fractures in the quartzite. A small showing at the east end of the property contains massive sphalerite, pyrrhotite and pyrite, as well as disseminated pyrite, pyrrhotite, sphalerite and chalcopyrite in the rhyolite host rock. The showing is near the quartzite contact.

### Current Work and Results:

In 1972, the company did geological mapping and rock and soil geochemistry. The soil survey outlined several small copper, zinc and molybdenum anomalies. A strong coincident copper, zinc and molybdenum anomaly was found over the sphalerite showing described above. This anomaly is open to the southeast of the claim group.

The consultant recommended that additional claims be staked to the east and south to cover the extension of the mineralized zone and the soil anomaly.

An I.P. survey and diamond drilling would depend on the results of additional geological and geochemical work in the vicinity of the sphalerite occurrence.

MAX	Copper, Molybdenum
Imperial Oil Enterprises Limited	115 G 15
500 - 6th Avenue Southwest	(61°52'N, 138°34'W)
Calgary, Alberta.	

References: Muller (1967); Craig and Laporte (1972, pp.

Claims: MAX: total of 148 claims and fractions

Location and Access:

The property lies near the headwaters of Rhyolite Creek roughly 45 miles northeast of Burwash Landing and 65 miles west-southwest of Carmacks. Access in 1971 was by helicopter from Burwash Landing or Carmacks.

History:

The claims were staked originally by Atlas Explorations Limited, in 1970, to cover a copper-molybdenum prospect discovered during a regional exploration program. Atlas subsequently carried out geological mapping, soil sampling, hand trenching and a ground magnetic survey on the property. In 1971, the claims were held under option by Imperial Oil Enterprises Limited.

Description:

The property is underlain by Yukon Group rocks which are intruded by Mesozoic and Tertiary granitic rocks. On the claims the Yukon Group consists mainly of micaceous quartzite, amphibolite gneiss and minor marble. To the east, these rocks are overlain by porphyritic andesite flows and pyroclastic breccias of early Mesozoic age.

The rocks intruding the Yukon Group have been divided into three groups: Nisling Range Alaskite, Nisling Range Granodiorite and basic dyke rocks. Nisling Range Alaskite is a coarse-grained, rarely porphyritic alaskite with associated felsite dykes, mainly in the southern and central parts of the property. Nisling Range Granodiorite exists on the property as two small stocks and two small occurrences of hornblende biotite quartz monzonite. The small basic dykes range in composition from diorite to lamprophyre.

Structure on the property is dominated by two northwest-trending faults, interpreted as normal faults, which are disrupted by smaller, northeast-trending cross-faults.

Molybdenite is present in quartz veins and as minor disseminations in the quartz monzonite plug on the western part of the property and also as rosettes in quartz veins cutting quartzite. Chalcopyrite occurs with pyrite and pyrrhotite in rusty breccia pockets in quartzite, in white to grey felsite dykes and their immediate host rocks and with molybdenite in the quartz monzonite plug.

Samples of mineralized quartz monzonite assayed: 0.009 per cent molybdenum and 0.033 per cent copper. Grab samples of rusty breccia in Yukon Group rocks assayed: 0.003 per cent molybdenum and 0.31 per cent copper.

#### Current Work and Results:

In 1971, Imperial Oil carried out a program of detailed geological mapping, soil sampling and induced polarization surveys in two areas designated Grid 1 and Grid 3, and diamond drilled 4 holes totalling 1,501 feet on Grid 1.

The soil sampling outlined a number of copper and molybdenum anomalies, some of which were high considering the low grade of the underlying mineralization discovered. The induced polarization surveys showed a number of anomalies, most of which appeared to be caused by disseminated iron sulphides which would effectively mask any copper or molybdenum concentrations. The diamond drilling on Grid 1 over the western quartz plug cut rocks sparsely mineralized with molybdenite and chalcopyrite. There appeared to be no variation in grade with depth in the holes.

KL, MAK  
Mitsubishi Metal Corporation  
2766 - 200 Granville Street  
Vancouver, British Columbia.

Copper  
115 H 7  
(61°29'N, 136°45'W)

Reference: Tempelman-Kluit (1974).

Claims: KL 1-9; MAK 4, 6, 8, 15-28, 37, 38, 40

#### Location and Access:

The property lies roughly four miles north of the north end of Long Lake, approximately 75 miles northwest of Whitehorse. Access in 1971 was by helicopter.

#### History:

The KL claims were staked in 1969. Geological and geochemical surveys carried out in 1970 outlined a copper anomaly 800 feet long by 350 feet wide trending northeast. An induced polarization survey later the same year outlined a chargeability anomaly roughly coincident with the geochemical anomaly. The MAK claims were staked in August, 1970, subsequent to the foregoing work.

#### Description:

Regional mapping by Tempelman-Kluit (1974) indicates the claims are underlain by Tertiary volcanics consisting mainly of tuffaceous rocks but including feeder plugs and necks. In detail, the rocks on the property consist of granitic rocks of Cretaceous to Jurassic age which have been intruded by dioritic rocks of roughly the same age. The dioritic rocks are locally brecciated, altered, and pyritized. Malachite staining is prominent in the brecciated diorite.

### Current Work and Results:

Detailed geochemical and geological surveys in conjunction with bulldozer trenching were carried out in 1971. The results of this work indicated a geochemical anomaly coincident with that outlined in 1970. The trenching exposed abundant malachite staining associated with brecciated diorite which assayed around 0.3 per cent copper.

Seven holes totalling 2,590 feet were also drilled in 1971. The drilling outlined a mineralized zone trending northeast in which chalcopyrite, molybdenite and pyrite accompanied by various alteration products, including carbonate, biotite and chlorite occur in brecciated diorite. The copper content is generally on the order of 0.1 to 0.2 per cent with traces of molybdenum.

### ANVIL RANGE

ARROW	Lead, Zinc
Canadian Reserve Oil and Gas Limited	105 L 9
639 - 5th Avenue Southwest	(62°35'N, 134°15'W)
Calgary, Alberta.	

Reference: Campbell (1967).

Claims: ARROW 1-50

### Location and Access:

The claims cross the lower part of the Tay River near its junction with the Pelly, about 30 miles northwest of Faro. Access is by helicopter from Faro.

### History:

A gravity survey was conducted over the claims in 1970.

### Description:

The claims are in an area of Mississippian Anvil Range Group rocks, consisting of andesite and basalt flows, breccia, tuff, carbonaceous shale, locally quartz-mica schist and lime-silicate rocks. These rocks are intruded by biotite granodiorite and quartz monzonite, minor biotite-hornblende quartz diorite and leuco-quartz monzonite all of Jurassic and/or Cretaceous age.

Northwest trending faults on the claims have been interpreted from the gravity data.

### Current Work and Results:

During 1971 further gravity surveys and geochemical sampling were done on the property, followed by diamond drilling of three holes. In 1972, further geological mapping and geochemical sampling were completed and an I.P. survey done on a small area.

ANVIL MINING CORPORATION LTD.  
Faro, Yukon Territory  
-and-  
510 West Hastings Street  
Vancouver, British Columbia

Lead, Zinc  
105 K 6  
(62°21.5'N, 133°22'W)

References: Chisholm (1957, pp.269-277)  
Roddick and Green (1961a)  
Green and Godwin (1964, pp.31-32)  
Green (1965, pp.36-37; 1966, pp.47-50)  
Aho (1966, pp.127-149)  
Roddick (1967)  
Findlay (1967, pp.35-39; 1969a, pp.43-45  
1969b, pp.29-30)  
Tempelman-Kluit (1968, pp.48-52)  
Craig and Laporte (1972, pp.94-96)

Claims: Approximately 2,000 claims in the Faro Area.

Location and Access:

The Anvil Mine is in the Anvil Range, 130 air miles northeast of Whitehorse. Concentrates are trucked in 30-ton capacity containers via a 17 mile access road to the Campbell Highway, to Carmacks and to Whitehorse by the Klondike and Alaska Highways, a total distance of 230 miles. The containers are transferred to railroad cars and delivered, via the White Pass and Yukon Route, the 110 miles to the port of Skagway, Alaska.

History:

The Faro deposit was discovered during the 1965 field season by a Dynasty Explorations Limited program involving airborne magnetometer and EM surveys, ground magnetometer, EM, gravity and geochemical surveys and geological mapping, followed by rotary and diamond drilling. The Faro No. 1 zone was delineated in 1966 by diamond drilling and an adit for bulk sampling driven in late 1966 and early 1967. A production decision was announced on March 20, 1967. Preproduction work on mine, mill and townsite went forward from 1967 to 1969 and the first concentrates were produced in September, 1969.

Description:

Strong stratigraphic controls of Pb-Zn mineralization have been found in Eocambrian pelitic rocks of the Anvil metamorphic belt. This belt has undergone two periods of regional dynamothermal metamorphism of greenschist to middle amphibolite grade. The superposed deformations have produced a regional nappe structure encompassing the southwest flank of Anvil Range. Both metamorphic events post-date massive Pb-Zn mineralization.



Current Work and Results:

Exploration Review:

Exploration was conducted at the mine site and in a 150 square mile area on the south flank of the Anvil Range.

Exploration in 1971 and 1972 by Anvil Mining Corporation included regional geological, geophysical and geochemical ground surveys accompanied by overburden rotary drilling and diamond drilling of specific targets. Controls of mineralization were established by this program and various exploration methods were evaluated in the district. During the 1971 and 1972 programs 227 rotary drill holes totalling 15,000 feet and 14 diamond drill holes totalling 7,200 feet were completed.

Development work on the Faro deposits over the same time period consisted of 23 diamond drill holes totalling 11,875 feet. Most of these holes were drilled for ore control information. In general, only minor modifications of published reserve figures are indicated by this development work.

The operating summary for 1970, 1971 and 1972 is as follows:

	<u>1970</u>	<u>1971</u>	<u>1972</u>
Milled (tons)	1,963,085	2,673,000	3,060,168
Rate (tons per day)		7,299	7,935
Mill Heads			
Lead (per cent)		4.9	4.6
Zinc (per cent)		6.9	6.2
Silver (oz/ton)		1	1
Reserves	63,473,000	58,404,000	59,940,000

CAPA, ECHO, DELTA  
Dynasty Explorations Limited  
330, 355 Burrard Street  
Vancouver British Columbia

Lead, Zinc  
105 K 2  
(62°14'N, 132°45'W)

References: Green (1966, pp.47-49)  
Tempelman-Kluit (1972)

Claims: CAPA 1-67; ECHO 1-39; DELTA 1-146, 148-155

Location and Access:

The property is located among and adjacent to Swim Lakes, 18 miles east of Faro and 20 miles northwest of Ross River. Float planes can land at any of five lakes on and near the property. Numerous tote trails provide for fairly easy movement on the property, with bombardier-type tracked vehicles. Physiographically, the property is at the southeast end of the Anvil Range.

History:

In 1964 and 1965, Dynasty conducted airborne and ground geophysical surveys (aeromagnetic, ground magnetic and limited gravity work) over the area then held as the CUB and NASTY claim groups. Eight rotary drill holes, three on the NASTY claims and five on the CUB, were put down over gravity and magnetic anomalies. The ground was restaked in 1971.

Description:

The Anvil Range, about 50 miles long and 20 miles wide, comprises a belt of Proterozoic and Paleozoic strata. The dominant structure, the Anvil Arch, is a northwest trending, asymmetric antiform with the Anvil Batholith in its core (G.S.C. Map 1261A by Tempelman-Kluit). In the southeast, the amplitude of the arch diminishes resulting in a broad, shallow basin, the structural setting of the CAPA-ECHO - DELTA claims. The stratigraphic section consists of quartz mica schists and calc-silicates overlain by phyllite (Map 1261A, Unit 3), which is unconformably overlain by late Paleozoic volcanics and sediments. The known deposits in the area are in the quartz-rich phyllites at the base of Unit 3.

The CAPA and ECHO claim groups are underlain by the favourable quartz-rich lower part of the phyllite unit. Bedrock geology of the DELTA claims consists of phyllite higher in the section.

Current Work and Results:

The 1971 and 1972 exploration activity consisted of geochemical surveys, extensive further geophysical work, geological mapping at one inch equals 1,320 feet and diamond drilling of seven holes, totalling 3,566 feet.

Geochemical surveys were done to evaluate several techniques. Since much of the area is covered with deep, transported overburden, in some places to depths greater than 300 feet, conventional soil sampling is not reliable. Soil geochemical response was found to be weak and spotty. Silt samples from streams and the numerous ponds and lakes were found to give anomalous results which could be correlated with known gravity anomalies and electromagnetic conductors. Thus, lake silt analysis will be a useful prospecting tool in the district. Rock geochemical samples, consisting of chips from ten foot intervals in the rotary holes and chips every foot for 25-foot intervals from the diamond-drill core were found to reflect distinctly different background values for copper, lead and zinc in the rock units studied. The method should provide an aid in logging and may be used to establish geochemical trends within single units.

During the 1971 and 1972 field season, Dynasty Explorations Limited completed ground magnetometer and deep penetrating C.E.M. electromagnetic surveys over most of the claims. Gravity surveys were then conducted over magnetic and electromagnetic anomalies. A program of seven drill holes testing major coincident geophysical anomalies was undertaken during the fall of 1972.

ZAN, MX, AC, KD, TIM, JET, TAF, AM	Zinc, Copper, Lead
Kangaroo Exploration Corporation	105 K 6
555 South Flower Street	(62°27'N, 133°12'W)
Los Angeles, California,	
U.S.A.	

References: Tempelman-Kluit (1968;1972); Craig and Laporte (1972); Campbell (1967); Roddick and Green (1961).

Claims: MX 1-13, 25-28, 30, 56-62, 119-122, 178-195, 186A, 187A; TIM 1-32; ZAN 1-48; AM 1-14; TAF 1-64; AC 67-72, 75-96, 111, 112; KD 1-26; JET 1-16, 18, 20, 22, 24, 45, 47, 49-64, 93, 95, 97-104

Location and Access:

The property is 8 miles northeast of the Anvil Mine and 16 miles north of Faro. Access is by helicopter from Faro.

History:

During 1966 the AC and JET claims were staked by Giant Yellowknife Mines Limited which flew airborne MAG/EM and conducted soil geochemical and geological surveys that year. Galena bearing veins were discovered in an area staked as the KD claims that fall. The original AM claims were tied on to the KD claims late in 1966 by Altair Mining Corporation Limited.

In 1967 Altair Mining Corporation Limited conducted geological, soil geochemical, J.E.M., and gravity surveys and put down three diamond-drill holes totalling 1,161 feet on the AM claims.

In 1968 Mercury Explorations Limited worked in the area and carried out prospecting and small geochemical surveys. This work uncovered a small lead-zinc-silver vein in the Anvil Batholith near the schist contact. The ZAN claims were staked to cover a favourable unit extending into the drift-covered area downhill from the vein. Mercury optioned the Giant Yellowknife claims. Altair Mining Corporation Limited conducted some additional soil geochemical, J.E.M. and gravity surveys on the AM claims.

In 1969 Mercury Explorations Limited staked a large block of ground as the TIM and MX claims which in combination with previous claims gave them control of an approximately 15 mile long strip of favourable ground near the Anvil Batholith. In early 1969, a large reconnaissance gravity survey was conducted over overburden covered, or poorly exposed areas, along approximately seven miles of this favourable zone. This survey outlined three anomalous areas in a broad, overburden covered valley, including one large anomaly of moderate intensity near the geochemical anomaly and mineralization discovered in the previous season on the ZAN claims.

In 1970 Kangaroo Exploration Corporation, a subsidiary of Cyprus Mines Corporation, optioned the joint Mercury-Giant claims and conducted I.P. and geochemical surveys over the gravity anomalies in the fall. During the winter, three diamond-drill holes totalling 1,948 feet tested the gravity and geochemical anomalies near the ZAN showings. These holes intersected biotite-muscovite schists and minor greenstone with only minor pyrite and pyrrhotite in the schists. Drilling also showed highly variable depths to bedrock.

#### Description:

Claims are underlain by quartz-muscovite-biotite schist, calc-silicate gneiss and marble; quartz-chlorite-sericite phyllite, chlorite phyllite, calcareous phyllite and phyllitic marble; graphitic schist and greenstone corresponding to Tempelman-Kluit's (1972) units 3B and 2, 3, 7? and 3a and 12 respectively and distributed essentially as shown by Tempelman-Kluit. These rocks are structurally overlain by foliated, fragmental, pillowed and amygdaloidal metavolcanics with lesser interlayered slaty tuffs and sediments (Tempelman-Kluit's unit 8b), which contain all deformational fabrics developed in the underlying phyllites and pass laterally into the phyllites by increasing deformation. These volcanics are thought to be Ordovician or older and roughly coeval with the phyllites as suggested by Roddick and Green (1961) and Campbell (1967) but contrary to the unconformable relationship described by Tempelman-Kluit (1972).

#### Current Work and Results:

In 1971, systematic geochemical coverage was started on the entire claim block and reconnaissance geological mapping was done. Numerous geochemical anomalies were discovered including a large and intense one on the KD claims. In 1972 Turam magnetometer and gravity surveys were conducted over the geochemical

anomalies outlined in 1971, and the geology of the entire property was mapped in detail. Four diamond-drill holes totalling 2,064 feet were put down that fall. The last of these holes cut widespread, low-grade zinc and copper sulphides in metavolcanic rocks on the KD claims. The minerals are sphalerite and chalcopyrite with carbonate in deformed veinlets, in amygdules, and as disseminations within a large zone of pre-metamorphic quartz sericite carbonate alteration.

TRY  
Spartan Explorations Limited  
3165 Dunbar Street  
Vancouver 1, British Columbia.

Lead, Zinc  
105 K 6  
(62°28'N, 133°21'W)

Reference: Tempelman-Kluit (1972).

Claims: TRY 1-96

Location and Access:

The property is in the upper part of Anvil Creek seven miles northeast of Anvil. Access is by helicopter.

History:

The claims were staked in 1971 to cover an area opposite the Faro orebodies with respect to the Anvil Batholith, and underlain by the favourable quartzose phyllites section of the metasediments. Previous work in the area was done on the nearby ZAN, MC and AC claims, on the southeast boundary of the TRY claims.

Description:

In this area of phyllite and acid intrusions the most prominent stratigraphic unit is a bluish sericitic quartz phyllite which strikes northwest and dips moderately to the northeast. Graphite, pyrrhotite and pyrite occur as disseminations in the lower sections. Below this unit are biotite-muscovite schists, and above, andesite flows with some tuffs predominate.

Current Work and Results:

In the 1971 season an I.P. survey was done over the claims with the delimiting of three chargeability highs. Further I.P. and magnetometer surveys were recommended to define drill targets.



TOP and SANK  
Citex Mines Limited  
310 - 890 West Pender Street  
Vancouver, British Columbia.

Lead, Zinc  
105 K 2  
(62°05'N, 132°40'W)

Reference: Findlay (1968).

Claims: TOP 17-24 (TOP 1-16 and SANK 13-44 lapsed by late 1972)

Location and Access:

The property is 15 miles north of Ross River and 15 miles southeast of the Swim Lakes property of Kerr-Addison. Access is by float plane or by tote road along the north side of the Pelly River.

History:

In 1966, Archer, Cathro and Associates and A.O. Hall did a reconnaissance copper-zinc geochemical survey and an aeromagnetic survey and geological mapping.

Description:

The claims are underlain by Cambrian phyllite, Mississippian clastics and Pennsylvanian volcanics, all cut by Anvil Mesozoic intrusions of varying compositions. These rocks of the Anvil Batholith underlie much of the northern half of the property.

Current Work and Results:

An aeromagnetic survey in 1971 confirmed the geological trend, with a prominent anomaly outlining a granite-quartzite contact. An intrusive plug or an area of thick overburden is interpreted to be the cause of a prominent magnetic low..

HOHO, BRAM  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia.

Lead, Zinc  
105 K 3  
(62°15'N, 133°02'W)

Reference: Tempelman-Kluit (1972)

Claims: HOHO 1-8, 17-48; BRAM 9-16

Location and Access:

The claims form a contiguous block along Blind Creek, seven miles up from its confluence with the Pelly River. A 4-1/2-mile tote road suitable for tracked vehicles runs through the property along the northwest side of Blind Creek from the Vangorda-Swim Lakes road. Access in 1971 was by helicopter from Faro, ten miles to the west.

### History:

The claims were staked initially as part of the DY claims in 1964, and the following year airborne surveys outlined magnetic and electromagnetic anomalies in the area. The claims lapsed and were restaked in 1966 as part of the LUK group. These claims also lapsed and were restaked in 1971 as the HOHO and BRAM claims by Dynasty Explorations Limited.

### Description:

The area is underlain by Lower Paleozoic strata, mainly sericite-biotite schist and quartz phyllite (unit 3, Tempelman-Kluit, 1972). To the northwest, these rocks are intruded by granitic rocks of the Anvil Batholith (unit 11, op. cit.).

The property itself has few outcrops except along Blind Creek where a sequence of phyllitic rocks is exposed. At the base of the section is a dark-grey, quartz-rich phyllite. This grades upward through pale-grey to pale-greenish sericite-chlorite phyllite which in turn grades into a limy, carbonate phyllite at the top of the section. The middle and upper sections of the phyllite contain lenses of greenstone up to tens of feet thick, varying from massive amphibolite at the core to well-foliated chlorite schist near the margins. These lenses frequently contain pyrrhotite and pyrite and sparse chalcopyrite in quartz veins.

### Current Work and Results:

Work on the property in 1971 consisted of geological mapping, soil sampling and a ground electromagnetic survey.

The airborne surveys in 1965 outlined two electromagnetic anomalies now covered by the HOHO and BRAM claims. The 1971 ground electromagnetic survey was carried out over these anomalies with a Crone C.E.M. instrument using a horizontal loop configuration. This survey outlined a number of anomalies including a strong anomaly in the area of one of the airborne anomalies, located west of Blind Creek.

Soil sampling in the vicinity of the ground electromagnetic anomalies outlined an area of coincident copper, lead and zinc anomalies near the northwest border of the property.

MARK, LEE

Canadian Reserve Oil and Gas Limited  
for Anvil Project Group  
1600 - 639 - 5th Avenue Southwest  
Calgary, Alberta.

105 K 5, 105 L 8

References: Roddick and Green (Map 13-1961); Tempelman-Kluit (1972).

Claims: MARK 1-130; LEE 1-8

Location and Access:

The claims straddle Anvil Creek, between Rose Creek and Pelly River. Access is by helicopter from Faro, 23 miles to the southeast.

History:

During 1970, initial work on the property was done by Overland Exploration Services (1969) Limited, another member of the Anvil Project Group. work consisted of reconnaissance gravity surveys over prepared grids with readings taken at 250-foot intervals on lines 750 feet apart. Additional work consisted of limited geological mapping, prospecting and geochemical sampling.

Description:

The property is divided into eastern and western parts for description. Of the eastern part, the southern half is flat and deeply overburden covered. The sparse outcrop, largely restricted to Anvil Creek and tributaries is biotite-quartz phyllite, locally graphitic (as unit 3, Tempelman-Kluit, 1972). The northern part is distinguished from the south by a west-northwest trending break from the flat to a uniform slope with thinning overburden and abundant outcrop of biotite-quartz monzonite of the Anvil Batholith (unit 11, op. cit.). On the western part of the property abundant outcrop consists largely of foliated, metamorphosed intermediate to basic volcanic rocks (unit 8 op. cit.). A small area is underlain by biotite-quartz phyllite; quartzite and graphitic chert outcrop in Anvil Creek. Both of these areas are near the southern edge of the property.

Current Work and Results:

Exploration of the claims groups was continued in 1971 and 1972 with geological mapping, prospecting, and geochemical sampling. Emphasis was on evaluating two prominent co-linear gravity anomalies on the eastern part of the property. Soil samples taken at 200-foot intervals on lines 750 feet apart and silt samples from the major drainages were analysed for copper and zinc. A magnetometer survey was conducted over the area of the two prominent gravity anomalies in the eastern part, using the same grid lines as the geochemical survey.

Analyses for copper, lead and zinc in the silt samples for the eastern part were all within the background range. The soil results showed no response over the western part of the two major gravity anomalies. The eastern anomaly is in an area which is higher in copper and zinc than elsewhere in the Anvil Creek area although well defined anomalies were not recognized. The axis of the gravity anomalies is essentially coincident with the intrusion-metasediment contact. The magnetic profiles are flat with no features which can be correlated with either gravity anomalies or geological contacts. No sulphide showings were found in the eastern part of the property.

On the western part all samples collected over gravity anomalies had concentrations within background range for lead and zinc. Samples above threshold for copper are scattered over the area, but most are near outcrops of metamorphosed andesites. No significant sulphide showings were found.

The gravity anomalies seem to reflect topographic highs and thin overburden. Prospecting and soil and silt samples did not indicate any targets worthy of further work.

COLT, BLUE, ALTA, KING  
Canadian Reserve Oil and Gas Limited 105 K 2  
for Anvil Project Group (62°37'N, 133°35'W)  
1600 - 639 - 5th Avenue Southwest  
Calgary, Alberta.

Reference: Tempelman-Kluit (1972).

Claims: BLUE 1-65; COLT 1-14; KING 1-27; ALTA 1-26, a total of 132, in five closely-spaced but non-contiguous blocks.

Location and Access:

The claim groups are 30 miles north-northwest of Faro. Access was by helicopter from Faro.

History:

During 1970 initial work consisted of reconnaissance gravity surveying and limited geological mapping, prospecting and geochemical sampling.

Description:

The area of the claim groups is bounded on the south and east by blocky, unaltered, medium- to coarse-grained Cretaceous granodiorite of the Anvil Batholith. West and north of the granodiorite, the rocks are intimately interbedded graphitic shale and argillite, black to grey quartzite, minor black to grey limestone, black chert and andesite. Adjacent to the intrusion, the sediments have been converted to a hornfels in a zone of varying width characterized by rusty weathering and the occurrence of andalusite and sillimanite.

### Current Work and Results:

Exploration of the claim group was continued in 1971 and 1972 with further mapping, prospecting and geochemical sampling. Gravity surveys were conducted on the BLUE 30-64 and COLT 1-14 claim blocks. One gravity anomaly on the BLUE claims was tested with a series of I.P. traverses. The prospecting, mapping and geochemical surveys were to evaluate the gravity anomalies recognized in the 1972 and earlier surveys. Silt samples from most drainages were analyzed for copper, lead and zinc with some samples being checked for molybdenum as well.

On the gravity anomalies on the ALTA claims, where soil geochemistry indicated anomalous copper and zinc concentrations, the source was found to be pyritic, amygdaloidal andesite. Of two gravity anomalies on the KING claims, high values for copper and zinc are most closely associated with the intrusive contact. For a gravity anomaly completely within the granodiorite intrusion (BLUE 1-20 group) there was no associated geochemical anomaly. The I.P. test of one gravity anomaly on the BLUE 30-64 block suggested the gravity anomaly to be caused by rugged bedrock topography. Where the underlying rock is highly graphitic, the I.P. results were inconclusive. For several gravity anomalies, based on the work done, there was no satisfactory explanation. For all of the area examined there is a high proportion of bedrock exposed and as careful examination found no sulphides other than minor disseminated pyrite in shales, the company geologist recommended that no further work be done on these claims.

FOTO  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Lead, Zinc  
105 K 2, 7  
(62°15'N, 132°44'W)

Reference: Tempelman-Kluit (1972).

Claims: FOTO 1-224

Location and Access:

The claims are situated in a single block 2 miles northeast of a small lake known locally as Cub Lake. Faro is 20 miles southeast. Access is by fixed-wing aircraft to Cub Lake or by helicopter to the property itself.

History:

The claims were staked in the spring and summer of 1972 following regional geological mapping and airborne magnetic and electromagnetic surveys in the area.

Description:

The property is underlain by Proterozoic and Lower Paleozoic strata which have been intensely deformed. The



oldest rocks are quartz-biotite-garnet schist with staurolite and andalusite porphyroblasts and quartz-mica schist of Hadrynian to Cambrian (?) age (unit 2, Tempelman-Kluit, 1972). These are overlain by well-foliated quartz-sericite-biotite-chlorite graphite phyllite and sericite-chlorite-graphite phyllite of Lower Cambrian (?) age which contain greenstone lenses up to several hundred feet thick (unit 3, Tempelman-Kluit, 1972). East of the claims, these rocks are intruded by Cretaceous quartz monzonite to granodiorite of the Anvil Batholith (unit 11, Tempelman-Kluit, 1972).

No lead or zinc sulphide occurrences have been found on the property although disseminated pyrite was noted locally in quartz-graphite phyllite.

#### Current Work and Results:

Work on the property in 1972 consisted of geological mapping, rock and soil sampling and magnetic, electromagnetic (Turam) and gravity surveys.

The soil sampling failed to outline any anomalous areas, probably because of thick overburden cover. Rock geochemical sampling also did not indicate any significant lead-zinc trends.

The magnetic survey indicated four anomalous areas, three of which were coincident with electromagnetic and gravity response.

ROTO, LORNA, GRAN, JEAN, ARO  
Dynasty Explorations Limited  
330 - 355 Burrard Street

Lead, Zinc  
105 K 5  
(62°25'N, 133°45'W)

Reference: Tempelman-Kluit (1972).

#### Location and Access:

The property lies along Anvil Creek 7 miles northwest of Rose Mountain. Access is normally via helicopter from Faro, 18 miles to the southwest.

#### History:

The claims were staked late in 1970 following the discovery of several airborne magnetic and electromagnetic anomalies.

#### Description:

The property lies on the southwest limb of the Anvil Arch, a northwest-trending antiform with the elongate Anvil Batholith in the core. The section consists of Proterozoic and Paleozoic strata which have undergone complex structural deformation.

The ROTO, LORNA, GRAN, JEAN and ARO claims are underlain by a belt of phyllitic rocks of Lower Cambrian (?) age (unit 3, Tempelman-Kluit, 1972) bordered on the north and south by Cretaceous granitic rocks (unit 11, op. cit.).

#### Current Work and Results:

In 1970, preliminary geological mapping and geochemical reconnaissance were carried out in the area. Ground magnetic, electromagnetic and gravity surveys and soil sampling were undertaken in the areas of the airborne magnetic and electromagnetic anomalies outlined during previous surveys. Late in 1970, a coincident magnetic-gravity anomaly outlined on the LORNA group was tested by a single, 576-foot diamond-drill hole, which penetrated massive greenstone and chlorite schist through-out.

In 1972, work on the property consisted of detailed geological mapping. Although much of the property is covered by up to 200 feet of overburden, the claims do appear to be underlain by a sequence of south-dipping schist and phyllite, including the favourable quartz-rich phyllite. Minor amounts of pyrite and pyrrhotite as well as traces of galena were observed in phyllitic rocks on the ROTO, LORNA and ARO claim groups.

ACME  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia.

Lead, Zinc  
105 K 2  
(62°07'N, 132°47'W)

Reference: Tempelman-Kluit (1972).

Claims: ACME 1-24

#### Location and Access:

The claims are situated two miles west of Orchay Lakes, roughly 20 miles east-southeast of Faro. Access in 1971 was by helicopter or by float plane to a small unnamed lake on the claim group.

#### History:

The area was previously staked as the LEES, COME, PAL and LET claims on which a number of airborne magnetic and electromagnetic anomalies were outlined in 1966. There was some further work on the property but the claims were subsequently allowed to lapse in 1971, at which time they were restaked by Dynasty Explorations Limited as the ACME claim group.

#### Description:

The claims lie on the southwestern limb of a large anti-cline, the core of which is formed by the Anvil Batholith of Cretaceous age.

The oldest rocks on the property are dark slate and phyllite and black, banded hornfels of Hadrynian to Cambrian age (unit 2, Tempelman-Kluit, 1972). To the south and west, these rocks are bounded by faults trending southeast and north. Rocks in fault contact with the slate and phyllite to the south and east are mainly volcanics of Upper Pennsylvanian to Lower Permian age consisting of tuffaceous chert overlain by basalt (unit 8, Tempelman-Kluit, 1972). These rocks are resistant to erosion and form a prominent ridge on the southwestern portion of the claim group. Pyroxene gabbro of Upper Permian to Lower Triassic age (unit 9, Tempelman-Kluit, 1972) occurs as fault-bounded intrusions along the Vangorda Creek Fault, a strong, southeast-trending system of shears which crosses the southern part of the property. Small dykes of granodiorite related to the Anvil Batholith (unit 11, Tempelman-Kluit, 1972) intrude the volcanics.

Two mineral occurrences have been observed on the property. One consists of chalcopyrite with minor bornite associated with a quartz vein in a shear zone cutting gabbro. The second is a rhyolite dyke heavily impregnated with pyrrhotite in an area of volcanic rock.

#### Current Work and Results:

In 1971, a program of geological mapping, soil sampling and geophysical surveys were completed. Several coincident magnetic, electromagnetic and gravity anomalies were outlined. The soil sampling failed to outline any anomalies.

#### PELLEY MOUNTAINS

##### LYN GROUP

Cyprus Exploration Corporation  
510 West Hastings Street  
Vancouver, British Columbia.

105 K 3  
(62°06'N, 133°13'W)

Claims: LYN 3-16, 29-32, 81-82, 89-106, 119-134, 136, 138, 139-149, 151-152, 154

#### Location and Access:

The claims are eight miles south-southwest of Faro. Road access is possible from the Campbell Highway, two miles north of the claims.

#### History:

Previously held by Kerr-Addison Mines, the claims were mapped gravimetrically in 1970 and 1971. Steep gradients suggested likely drill targets.

#### Description:

The claims are underlain by calc-silicate gneiss and schist, some of which contain garnet and graphite which are well displayed on foliation surfaces. These rocks are strongly folded with deformations tentatively assigned to three or more generations. A granitic mass to the southwest appears to be deformed by the later tectonic movements.

### Current Work and Results:

Cyprus carried out further geological mapping and drilled a gravity anomaly with three holes totalling 1,500 feet. The rocks are garnet-bearing metasediments, locally graphitic, with veins of siderite in brecciated calc-silicate horizons which contain minor amounts of sheared galena.

PAT	Tungsten, Copper
A. Arsenault, P. Verslucé	105 F 14
Whitehorse, Yukon Territory	(61°57'N, 133°27'W)

Reference: G.S.C. Map 7-1960.

Claims: PAT 5-8

### Location and Access:

The claims are situated 3-1/2 miles northwest of Fox Mountain on the northwest side of the valley of a northeasterly-flowing tributary of the Magundy River. The area is rugged and the claims lie above timberline at elevations between 5,300 and 6,000 feet. Access in 1972 was by helicopter from Ross River, 34 miles to the east.

### History:

The claims were staked in 1971. Some trenching was carried out on the claims subsequent to the staking.

### Description:

The claims are underlain by metamorphosed sediments (unit A, G.S.C. Map 7-1969) which have been intruded by Jurassic and/or Cretaceous granitic rocks (unit 9, op. cit.) to the southwest.

The metamorphosed sediments consist mainly of well-bedded, hard, dark-grey, slightly micaceous quartzite which locally approaches siliceous slate or hornfels in appearance. The sediments strike northwest and dip 35° to 70° to the north.

The granitic rocks intruding the sediments consist mainly of medium-grained quartz monzonite, part of a large pluton present northwest and southeast of the property. Vertical dykes of quartz monzonite up to 100 feet wide also cut the sediments.

Two areas of scheelite with associated sulphides occur on the property. The first occurrence consists of a number of northwest trending lenses of pyrrhotite two to five feet wide along a strike length of 30 feet. Fine scheelite is distributed unevenly throughout the pyrrhotite. Minor amounts of fine chalcopyrite are also present. Host rock for this occurrence is quartzite.

The second occurrence consists of massive pyrrhotite up to 20 feet wide and conformable with quartzite host rocks trending west-northwest. Traces of scheelite are associated with the pyrrhotite.

### Current Work and Results:

Geological mapping of the property and detailed examination of the showings were conducted in 1972. Detailed mapping of the first occurrence indicated some areas should contain about one per cent tungsten oxide but that distribution is erratic. Sampling of the second showing indicated traces of scheelite.

### SOUTH MACMILLAN

CASCA PROJECT  
Phelps Dodge Corporation of  
Canada Limited  
404 - 1112 West Pender Street  
Vancouver 1, British Columbia.

Copper, Lead, Zinc  
105 J 12  
(62°43'N, 131°53'W)

Claims: PDR 1-48

### Location and Access:

The PDR claim group is about 65 miles north of Ross River, between the South Macmillan and Riddell River, about eight miles east of their junction. A winter road follows the Riddell River from Dragon Lake on the Canol Road. Wing Lake (local name), in the Riddell Valley, south of the claim block, is suitable for float plane use.

### History:

Atlas Explorations Limited, as part of their Hess Project, first staked in this area in 1968. The claims lapsed in 1970. The WING claims were staked in the same year to cover copper, lead and zinc mineral occurrences in intrusive rock. The present group of claims covers an aeromagnetic anomaly to the south of the WING group.

### Description:

A variety of intrusive and metasedimentary rock is found on the property. A Proterozoic sequence of grit, quartzite and dark shale is unconformably overlain by an Ordovician and Silurian sequence of chert and shale with conglomerate, quartzite and limestone. The Paleozoic rocks are represented on the property by a major chert-limestone unit in the southwest part, and by abundant, coarse, siliceous grits, clastic breccias and arkose, with metasilstone, chert and argillite, on the remainder of the property. Chert and skarn, argillite and slate, limestone and meta-volcanics are also found on the property.

Mesozoic granodiorite forms a large circular stock west of the northeast flank of Klingit Peak. Syenite phases, probably of the same intrusion, occur in the southeast and minor syenite dykes are present in the north. A non-magnetic gabbro, and related diorite, serpentine and greenstone occur southwest of the property. Various dykes, mainly of quartz-porphyry, felsite, and altered feldspathic, pyrrhotite-bearing, granodiorite are present. The granodiorite dykes contain minor occurrences of copper, lead and zinc minerals.



East trending structures in both Proterozoic and Paleozoic rocks control the sulphide occurrences.

#### Current Work and Results:

Work in 1971 consisted of geological mapping, geochemical soil surveys, soil profile studies and a magnetometer survey.

A brief drilling program was completed late in the 1971 season.

### WATSON LAKE MINING DISTRICT

#### CASSIAR MOUNTAINS

SILVER SEVEN	Tungsten, Lead, Zinc
Silver Seven Exploration Limited	105 B 1
	(60°07'N, 130°26'W)

References: Little (1959, p. 37); Poole, Roddick and Green (1960); Green and Godwin (1963, pp. 31-32); Green (1966, pp. 80-82); Cathro (1969); Craig and Laporte (1972, pp. 134-137).

Claims: LUCK, SEVEN, SUSAN, MORN (a total of 88)

#### Location and Access:

The property is in the Boulder Creek drainage basin, in the eastern Cassiar Mountains, 57 miles west of Watson Lake and three miles north of the Alaska Highway. Access is by four-wheel drive vehicle.

#### History:

Wolframite veins were found in 1943, in what has been called the Fiddler Zone. During 1951 to 1953, Yukon Tungsten Corporation drove a 530-foot adit and 235 feet of raises on these veins. In 1971, the LUCK lead-zinc-silver showing was discovered and optioned to Scurry Rainbow Oil Company, which did trenching, geophysics, geochemistry and diamond drilling (three holes totalling 2,597 feet).

#### Description:

Two small quartz diorite dykes, the only intrusive rocks exposed on the property, cut lower Cambrian calcareous schists, phyllites and marble. Regional metamorphism is related to the Cassiar Batholith to the west. En echelon quartz veins of the Fiddler Zone contain galena, wolframite, cassiterite, scheelite, fluorite, stannite, sphalerite, chalcopyrite and pyrite. A 2,000 foot long silicified breccia zone contains scheelite. Previously drilled replacement-type lead-zinc showings and narrow quartz-galena-sphalerite veins occur in the area.

Current Work and Results:

During 1971, Amax Exploration Incorporated did a preliminary evaluation consisting of geological mapping and soil sampling and rock geochemical sampling, which provided further information on the grade and distribution of the tungsten-bearing rock. Amax did not option the property.

L, LOLA  
Mark V Petroleum and Mines Limited  
301 - 540 Burrard Street  
Vancouver 1, British Columbia.

Lead, Silver  
105 B 1, 2  
(60°01'N, 130°30'W)

Reference: Green (1966, pp. 79-80).

Claims: LOLA 1, 2; L 1-6, 11-16

Location and Access:

A four-mile tote road leaves the Alaska Highway near Mile 706 and follows the valley of Freer Creek to the property.

History:

In 1958, previous owners drove an adit about 590 feet long some 600 feet below the main surface showing. Nine tons of hand sorted galena were shipped from the quartz-carbonate-sulphide veins in 1968. Trenching and sampling were done by the present owners in 1970.

Description:

The area is within the Cassiar Batholith, local phases being a porphyritic quartz diorite in contact with a finer grained diorite. Dark brown diabase dykes, up to ten feet thick, cutting the quartz diorite, trend 70 degrees, parallel to one of two regional fracture directions. The main showing consists of strongly mineralized rubble and gouge in a fault zone. Epidote and chlorite occur as alteration products, and are widespread near the main showing.

Current Work and Results:

In 1971, in the course of detailed geological mapping, several scattered minor occurrences of galena were found.

DAN, MOD, LUX, OMO  
Boswell River Resources Limited  
803 - 1177 West Hastings Street  
Vancouver, British Columbia.

Silver, Lead, Zinc,  
Copper  
105 B 2, 3  
(60°14'N, 131°18'W)

References: Poole, Roddick and Green (Map 10-1960);  
Craig and Laporte (1972, pp. 137-138).

Claims: DAN, MOD, OMO, LUX, TIDE, SAM, MAX (a total of approximately 800)

Location and Access:

The property is on the Swift River in the Cassiar Mountains, 80 miles west of Watson Lake and lies northeast of Mile 722 of the Alaska Highway. Access is by a 12-mile tote road from Mile 722, north past Pine Lake airstrip to Daughney Lake.

History:

Silver-bearing galena and sphalerite float was found by Hudson Bay Mining and Smelting Company prospectors in 1946. That company did an E.M. survey in 1952 and diamond drilled the most promising anomalies, finding them to be related to graphitic schist. Cominco Limited examined the ground in 1962. In 1968 Boswell River restaked the area, (DAN 1-10), did E.M., I.P. and magnetometer surveys and staked more claims. During 1969 some 4,300 feet of diamond drilling was completed. During 1970, airborne E.M. and magnetometer surveys were flown over a nine-square mile area on and adjacent to the claim blocks, on the basis of which additional claims were staked from the original property eastward to the Pine Lake airstrip. Some 3,000 lineal feet of trenches were cut on magnetic highs, on the DAN, BUD and TAM claims. Nine holes totalling 1,900 feet were diamond drilled on the DAN claims where sphalerite and chalcopryite were found in the trenches. Ground magnetometer and geochemical surveys were made - the geochemical samples being taken at 200-foot intervals on lines 400 feet apart. Geological mapping was completed on roughly 100 claims in the northern part of the property, including the original DAN showings.

Description:

The property is largely underlain by chert, hornfels, argillite, slate and phyllite (unit 10, Poole et al, 1960) having northwest trending, steeply dipping foliation. These rocks are separated from the biotite quartz monzonite of the Cassiar Batholith (unit 15a, op. cit.) to the north by the west-north-west trending Swift River Fault. Two plugs of diorite are also present on the mapped part of the claims.

Pyrrhotite, in some places accompanied by sphalerite, occurs as disseminations and as massive sulphide in foliation parallel bands up to a few tens of feet wide, in phyllite and hornfels host rock. Magnetite-pyrite-rich bands or zones are also present. Minor chalcopryite is present as small blebs, fracture coatings and veinlets within both the pyrrhotite and pyrite zones.

### Current Work and Results:

During January, 1971, 28 of the LUX, OMO claims, that part of the property immediately west of the Pine Lake airstrip, were surveyed by the Turam method. Some 15.3 line miles were completed to further define conductors detected by the 1970 airborne survey. Nine zones, having conductivities consistent with either massive sulphides or graphitic schist, were identified. Of these, five had fair magnetic correlation.

The diamond drilling to date has been disappointing. Of the pyrrhotite drilled in 1970, there were no intersections of economic significance. In 1971, three holes totalling 1,650 feet, targeted on the Turam survey, cut largely argillite, graphitic argillite, dolomite and limestone. An intersection of 1-1/2 feet in DDH 71-3 graded: 1.2 per cent zinc, 1.3 per cent lead and 3.7 ounces per ton silver.

FREER CREEK, LUCK  
Cone Mountain Mines Limited

Silver, Lead, Zinc  
105 B 1  
(60°00'N, 130°29'W)

Reference: Green (1966, pp. 79-80).

Claims: LUCK 7-22

### Location and Access:

The property is on Freer Creek at the Yukon-British Columbia border. Access is from Mile 706 Alaska Highway via a bridge over the Rancheria River and an eight mile access road to the property.

### History:

The property is on the south side of the Land LOLA claims where underground work was done in 1958 and bulldozer trenching in 1970.

### Description:

The area is underlain by rocks of the Cassiar Intrusion, here largely medium-grained biotite quartz monzonite or granodiorite. Lamprophyre dykes up to 20 feet wide intrude the quartz monzonite. Silver-bearing galena, sphalerite and minor chalcopryrite occur in quartz veins and lenses along steep east trending fractures or shears.

### Current Work and Results:

A total of 211 geochemical samples were taken at 100-foot intervals along East Freer Creek and at 200-foot intervals along a prominent ridge 2,000 feet to the east. Further samples were taken at 100-foot intervals along short east-west lines 800 feet apart crossing the creek and ridge.

Several small coincident lead and zinc anomalies occur on the ridge, two of which are associated with mineralized float

grading roughly ten per cent lead, one ounce silver per ton and less than one per cent zinc. Several small coincident lead, zinc and silver anomalies, most involving only a few samples, occur in the valley of Freer Creek. Copper response was essentially negative.

H  
Arsenault, McKinnon, Verslucé  
Whitehorse, Yukon Territory.

Silver, Lead, Zinc,  
Tungsten  
105 B 3  
(60°13'N, 131°17'W)

Reference: G.S.C. Map 10-1960.

Claims: H 1-48

Location and Access:

The property is at Hidden Lake, 96 miles west of Watson Lake and 15 miles northwest of Mile 722 on the Alaska Highway. An older tote trail from Daughney Lake ends at Crescent Lake, three miles southeast of the claims. Float aircraft can operate from Hidden Lake.

History:

The claims were staked in 1970 on the basis of mineralized float found several years earlier by prospector W. McKinnon, and were optioned by Wolf Lake Joint Venture from owners Arsenault, Verslucé and McKinnon.

Description:

The property is underlain by northwest trending belts of Lower Cambrian and possibly earlier, to Mississippian low grade metamorphic rocks (unit 1 - quartzite, unit 2 - muscovite-chlorite schist, unit 3 - phyllite and marble, unit 7 - quartz-feldspar-chlorite schist and unit 8 - massive and layered hornfels, G.S.C. Map 10-1960). These rocks are intruded on the southwest side by fine- to medium-grained biotite granodiorite of the Ram stock of the Cassiar Intrusions.

Current Work and Results:

Geological mapping and a reconnaissance geochemical survey were done on the property in 1971. Forty rock, soil and silt samples were taken, mostly in areas underlain by hornfels. Weak to moderately anomalous amounts of tungsten, copper, molybdenum, lead and zinc were found; however, results were discouraging. Sphalerite-pyrite veins in hornfels are narrow and discontinuous; rare grains of scheelite occur locally in skarn.



TUNG  
Wolf Lake Joint Venture  
c/o Rayrock Mines Limited  
1011 - 2200 Yonge Street  
Toronto, Ontario.

Tungsten  
105 B 10  
(60°37'N, 130°33'W)

Reference: Poole, Roddick and Green (1960).

Claims: TUNG 1-34

Location and Access:

The property is in the northeastern Cassiar Mountains between Cabin and Allan Creek, 40 miles north of Rancheria, Mile 170 on the Alaska Highway, and 75 miles northwest of Watson Lake. Access is by helicopter.

History:

The claims were staked in August, 1971. There is no record or evidence of earlier work.

Description:

Marble horizons (unit 16, Poole, Roddick and Green, 1960) in biotite schist and gneiss (unit 1d, op. cit.) are converted to skarn at the contact with a biotite-quartz monzonite and granodiorite stock (unit 15d, op. cit.). On the property, the skarn assemblage is garnet, diopside, tremolite, calcite and quartz with disseminated pyrrhotite and scheelite. The mineralized material occurs as float trains of felsenmeer and talus developed from two such skarn layers.

Current Work and Results:

Following staking, Wolf Lake Joint Venture did geological mapping, rock and geochemical sampling during part of August, 1971 and part of July, 1972. The skarn zones do not outcrop, but are suggested to be a maximum of 10 to 20 feet thick and 500 to 1,000 feet long.

## WOLF LAKE

NITE, MID  
Wolf Lake Joint Venture  
c/o Rayrock Mines Limited  
1011 - 2200 Yonge Street  
Toronto, Ontario.

Tungsten, Molybdenum  
105 B 7  
(60°20'N, 131°40'W)

Reference: G.S.C. Map 10-1960.

Claims: NITE 1-24 25-64; MID 1-29

### Location and Access:

The claims are situated on a northwest-trending ridge four miles southeast of Caribou Lake and roughly 20 miles north of Rancheria Lodge at Mile 710 on the Alaska Highway. Watson Lake is 70 miles southeast. The principal showings are mostly above tree line at elevations of about 5,000 feet. In 1971, access was by helicopter or by fixed wing to Caribou Lake or to Edgar Lake, three miles southwest of the property.

### History:

The claims were staked for the Wolf Lake Joint Venture in 1971 to cover zones of scheelite and molybdenite-bearing garnet-diopside skarn. The MID claims cover an area of skarn which had been staked as the BASTILLE claims in 1948 by Great Northern Exploration Company Limited. The Wolf Lake Joint Venture is a consortium composed of Caltor Syndicate, Rayrock Mines Limited and Ashland Oil Incorporated.

### Description:

The property is underlain mainly by Lower Cambrian or earlier schist and quartzite (unit 1a, G.S.C. Map 10-1960) which has been intruded by Cretaceous biotite quartz monzonite and granodiorite to the southwest (unit 15, G.S.C. Map 10-1960). The contact of the intrusive and metamorphic rocks is commonly marked by the development of marble and skarn (unit 1b, G.S.C. Map 10-1960).

Tungsten and molybdenum showings on the property consist of scheelite and molybdenite in garnet-diopside-quartz skarn developed in limy units within Lower Cambrian schist and phyllite. Silver-lead-zinc sulphide showings are also present on the MID claims in a black, porous gossan.

### Current Work and Results:

The showings were discovered during a program of regional geochemical sampling and prospecting in the summer of 1971. More detailed work was carried out later in 1971, in the form of bulldozer trenching and 1,503 feet of diamond drilling in eight holes.

The NITE showing consists of a zone of garnet-quartz-diopside skarn up to 100 feet wide and 3,000 feet long. The zone strikes northwesterly and dips to the northeast at about 45°. Scheelite occurs as disseminated grains and veinlets and molybdenite occurs as disseminated grains. Minor amounts of pyrite and pyrrhotite are also present.

Surface sampling in the main showing area indicated an average grade of 0.5 per cent tungsten oxide, although sampling of a bulldozer trench in the same area returned only 0.22 per cent tungsten oxide over 25 feet. Drilling of the zone beneath the trench returned assays of 0.14 to 0.17 per cent tungsten oxide and drilling down dip returned even lower assays on the order of 0.1 per cent tungsten oxide. These results indicate a decreasing grade down dip and that a higher grade zone, indicated by residual material over the showing, has been eroded.

The MID zone skarn trends north and dips 35° to 65° east. It includes narrow bands of limy hornfels, marble and weakly to intensely altered skarn and schist. Tungsten and molybdenum mineralization occurs in a ten- to 15-foot thick skarn band near the southern end of the zone where assays of surface samples indicate a tungsten oxide content of about 0.25 per cent. Also present in the MID area is a northeast-trending zone containing lenses of black, porous gossan with visible galena. This zone is about 1,800 feet long and averages ten to 15 per cent gossan over a width of 200 to 300 feet. Two grab samples of better mineralized material assayed: 0.005 ounce per ton gold, 1.06 ounces per ton silver, 8.0 per cent lead and 1.8 per cent zinc and; trace gold, 7.92 ounces per ton silver, 18.5 per cent lead and 10.08 per cent zinc respectively.

MUNG	Copper, Molybdenum
Wolf Lake Joint Venture	105 B 12
c/o Rayrock Mines Limited	(60°42'N, 131°45'W)
1011 - 2200 Yonge Street	
Toronto, Ontario.	

Reference: Poole, Roddick and Green (G.S.C. Map 10-1960).

Claims: MUNG 1-20

Location and Access:

The property is on the north bank of the Wolf River, 1/2 mile west of the outlet from Wolf Lake, on the Nisutlin Plateau. Access during the exploration work was by float plane from Whitehorse, 112 miles west.

History:

No record is known of previous exploration in this area. MUNG 1-16 claims were staked in July, 1971, over an area of intrusive outcrop with a weak gossan that was found during reconnaissance exploration.

Description:

Bedrock consists of a stock or dyke of unit 15d (Poole, Roddick and Green, G.S.C. Map 10-1960), a biotite granodiorite, cutting chlorite schists and greenstone (unit 7a). The intrusive rock is bounded on the west by northwest striking, moderately to northeast dipping quartzite of unit 12a. Showings of interest consist of: traces of molybdenite in a quartz vein in granodiorite breccia, minor chalcopyrite on fractures in an intensely sheared part of the granodiorite, and an intrusive breccia containing sedimentary and igneous rock fragments anomalously high in copper. Pronounced alteration in these areas of brecciation is at the argillic stage, with plagioclase sericitized and most of the biotite altered to chlorite.

Current Work and Results:

Initial geological mapping and soil sampling were done in 1971 and completed in 1972 with the preparation of a geological map on a scale of one inch equals 400 feet. Soil sampling was done at approximately 500-foot spacings with additional testing near the altered and weakly mineralized zones. Test pits were dug and copper distribution with depth established. Magnetic and I.P. surveys were run. The whole property showed a high chargeability, consistent with the hydrothermal alteration. Two anomalies were defined on the northeast contact of the stock. One anomaly is small and causative rocks are weakly altered and appear to have contained only pyrite. The larger anomaly has a strongly altered breccia within 300 feet and may be promising.

PELLY MOUNTAINS

BOT	Asbestos
Cima Resources Limited	105 G 10
330 - 355 Burrard Street	(61°39'N, 130°55'W)
Vancouver, British Columbia.	

Reference: G.S.c. Map 8-1960.

Claims: BOT 48-69

Location and Access:

The claim block straddles Big Campbell Creek, about eight miles southwest of Finlayson Lake and 55 miles east-southeast of Ross River. The Campbell Highway passes within five miles of the property on the north side. Access during 1970 was by helicopter from the highway at Finlayson Lake.

History:

The claims were staked in 1969 to cover an area of asbestos showings found by a company prospecting crew. Work on the property in 1969 consisted of geological mapping, prospecting and a ground magnetometer survey.

Description:

Asbestos occurs in a 200- to 500-foot wide serpentinite dyke that strikes about  $290^{\circ}$  and dips steeply to the north. Lateral displacement of the dyke is caused in several places by northeasterly trending right-lateral faults. Chrysotile veinlets are mantled by 1/2 to 1-inch wide alteration envelopes of magnetite. All exposures are below economic grade.

Current Work and Results:

In 1970 a ground magnetic survey outlined the areal extent of the serpentinite host rock beneath the overburden. Three test pits were dug over magnetic highs but these did not reach bedrock.

CPA	Lead, Silver, Gold
Charta Mines Limited	105 F 8
230 - 890 West Pender Street	( $61^{\circ}27'N$ , $132^{\circ}26'W$ )
Vancouver, British Columbia.	

References: G.S.C. Map 7-1960; Craig and Laoorte (1972, pp. 132-133).

Claims: CPA 1-12

Location and Access:

The claims lie on the southwest edge of the St. Cyr Range within the Pelly Mountains, roughly 100 miles northeast of Whitehorse. Access in 1971 was by helicopter.

History:

The CPA claims were staked in 1969 to cover three zones in an area of known lead, silver and gold occurrences. Rock samples and some random soil samples were taken in 1970.

Description:

Regional mapping indicates the property to be underlain primarily by buff, rusty and pale-green felsic breccias and tuffs with minor chert and brown crinoidal limestone of Mississippian age (unit 6c, G.S.C. Map 7-1960). In detail, rocks underlying the property consist mainly of altered, partly migmatized, felsitic agglomerate and tuff with some fine-grained, massive to banded flows. Locally, metasediments consisting of phyllite and pelitic schist outcrop.

Foliation is a strong feature of the rocks and varies from cleavage to schistosity to migmatitic banding and trends roughly east-northeast with a southerly dip.

Three large gossans occur on the property. The largest is 3,750 by 1,200 feet and trends northeast across the central part of the property. A smaller gossan, 1,500 by 500 feet lies to the west and also trends northeast while the third, 1,000 feet by 700 feet, lies east and trends north-northwest. The



gossans appear to be caused by the oxidation of minor pyrite and hematite.

#### Current Work and Results:

Field work in 1971 consisted of geological mapping, soil sampling and a ground magnetometer survey.

Two coincident copper and lead anomalies, each roughly 2,000 feet by 600 feet were outlined parallel to the general foliation trend although there is no obvious correlation with rock types. Two other copper and lead anomalies were also outlined but were less well-defined.

The ground magnetic survey showed relatively strong magnetic response on the eastern portion of the claims and may reflect a hidden intrusive.

HO-HO	Zinc, Lead, Silver
South Yukon Joint Venture	105 G 12
c/o Archer, Cathro and Associates Limited	(61°32'N, 131°33'W)
685 Two Bentall Centre	
Vancouver, British Columbia.	

References: Wheeler, Green and Roddick (1960); Findlay (1967, p. 59).

Claims: HO-HO 1-245

#### Location and Access:

The claims are located 50 miles southeast of Ross River and 15 miles south of the Campbell Highway. The 1966 Northlake winter road passes two miles to the east. Access for the 1972 exploration was by float plane to small lakes just east of the property and by helicopter for local use. Physiographically, the property is on the Pelly Plateau and bordered to the southwest by the Tintina Trench.

#### History:

Sphalerite-galena float was found by Newmont prospectors in 1955. In 1966, Northlake Mines Limited staked 824 claims, including ground presently covered by the HO-HO claims, conducted airborne and ground, magnetic and EM surveys, silt sampled and prospected. Four diamond-drill holes, with total footage of 1,596 feet, drilled on the EM conductor south of the present HO-HO group, returned minor sulphides (pyrite, pyrrhotite, and chalcopyrite in a graphite schist).

#### Description:

Although the claims have negligible outcrop, the property is recognized to be underlain by metasedimentary rocks of unit A, (Wheeler, Green and Roddick, Map 8-1960), of probable Lower Cambrian or Hadrynian age, on the basis of float considered to be near source and reconnaissance mapping of a 200 square mile

area at a scale of 1:50,000. A thinly-bedded sequence of chlorite, muscovite and biotite schist, limestone, limy phyllite, graphitic phyllite and quartzite, trends southeast and dips gently. The mineralization, consisting of bands of disseminated sphalerite with minor galena and pyrite in a gangue of ankerite and calcite, occurs in a host of sugary textured quartzose parts of the limy phyllite.

#### Current Work and Results:

The claims were staked from August to November 1972. The area was prospected thoroughly and soil sampled at intervals of 400 feet on lines 400 feet apart, near the central part of the claim group, and 800 feet apart on most of the remainder. Samples were analyzed for copper, lead and zinc. Five zones of coincident lead and zinc response were recognized. Test pitting of these revealed residual float mineralized with sphalerite and minor galena and assaying six to nine per cent zinc, 0.3 to 0.5 per cent lead and 0.3 to 0.5 ounces silver per ton. These zones are the target for continuing work in 1973.

#### LOGAN MOUNTAINS

TANYA GROUP	Copper, Lead, Zinc,
Turner, Pete and Coutts	Tungsten
Watson Lake, Yukon Territory	105 H 15
	(61°50'N, 128°55'W)

Claims: TANYA 1-24

#### Location and Access:

The claims, in the Anderson Lake area, 120 miles north of Watson Lake, occupy a high level, easterly trending valley in the Logan Mountains. The property can be reached from Mile Post 81 on the Nahanni Range Road, 25 miles to the southeast.

#### History:

The ground was staked several years ago and the claims lapsed. Recently Spartan Explorations staked claims to the southeast.

#### Description:

The interest is in scattered, rusty weathering sulphide showings in a known base metal area. The sulphide zones appear confined to an argillaceous limestone which is part of a Cambrian sedimentary sequence cut by a Cretaceous granitic stock. Southeast trending andesite dykes cut the easterly trending, northerly dipping sediments.

Sulphides are present in tension fractures.

#### Current Work and Results:

A magnetometer survey followed prospecting and trenching of a pyrrhotite-bearing, highly weathered gossan. The surrounding

skarn contains pyrrhotite, chalcopyrite, galena, and sphalerite and, in the west end, minor scheelite.

VAGAS  
Welland Consolidated Mining Limited  
1064 A - Austin Avenue  
Coquitlam, British Columbia.

Zinc, Lead  
105 H 2  
(61°15'N, 128°40'W)

Reference: G.S.C. Map 6-1966

Claims: VAGAS 1-8

Location and Access:

The claims are situated roughly 85 miles north of Watson Lake and can be reached by a 17-mile, four-wheel drive road which leads west from near Mile 59 of the Nahanni Range road.

History:

The claims were staked in December 1969.

Description:

The property is underlain by Devonian and Mississippian metasediments which comprise rusty, brown-weathering, fine-grained, schistose and spotted biotite hornfels, fine-grained quartzite, black pyritic argillite, dense light-green to grey, calc-silicate hornfels and fine-grained marble with minor slate, silty limestone and greywacke (unit 14, G.S.C. Map 6-1966).

Current Work and Results:

Soil sampling and a ground magnetic survey were carried out on the property in 1971.

Soil sampling outlined a number of zinc anomalies.

The magnetic survey failed to outline any distinct anomalous trends.

BROD  
Wye Lake Resources Limited  
715 - 850 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc  
105 H 9  
(61°37'N, 128°21'W)

Reference: G.S.C. Map 6-1966.

Claims: BROD 1-8

Location and Access:

The claims lie roughly two miles west of Mile 77 on the Nahanni Range road. Access in 1971 was by helicopter from Watson Lake, 100 miles to the south.

History:

Lead-zinc sulphides were discovered and staked in 1970 by E.G. Brodhagen. These claims lapsed and were restaked by Mr. Brodhagen in 1971 as the BROD claims.

Description:

Regional mapping indicates that the property is underlain by a thick succession of Cambrian and/or earlier shale, slate, quartzite, conglomerate and sandstone with minor limestone.

The lead-zinc showing consist of banded sulphides containing pyrrhotite, sphalerite, galena and traces of chalcopryrite exposed near the base of a steep bluff. The sulphides occur at the contact between banded hornfels on the hanging wall and marble on the footwall. The enclosing sediments strike roughly northwest and dip 60° to 65° southwest.

Current Work and Results:

A detailed examination of the outcrop was made in 1971 and a number of soil and silt samples were taken in the general vicinity of the showing.

A chip sample across 6.2 feet from the main showing assayed: 6.5 per cent lead, 4.2 per cent zinc and 0.16 ounces per ton silver.

BAILEY GROUP  
Morning Star Mines Limited  
204 - 1420 Marine Drive  
North Vancouver, British Columbia.

Tungsten, Copper  
105 A 10, 15  
(60°45'N, 128°20'W)

Reference: Gabrielse (1966).

Claims: BAILEY 1-32

Location and Access:

The group, two claims wide, trending north, lies about 50 miles north of Watson Lake and eight miles south-southwest of Mt. Murray at the southern end of the Selwyn Range. The claims are 14 miles east of the Campbell Highway and 12 miles south of the Nahanni Range Road. During 1971, the claims were reached by helicopter from Watson Lake.

History:

The claims were staked in 1971 to cover an earlier known showing (G.S.C. Map 19-1966)

Description:

The property lies on the southeastern contact of the granodiorite-quartz diorite batholith (Unit 12, Map 19-1966) which extends north through Mt. Murray and into Frances Lake map-area. Locally, skarn zones are developed where Paleozoic limestones (Unit 7, op. cit.) are intruded by the granodiorite. The skarn contains pyrrhotite, chalcopyrite and minor scheelite.

Current Work and Results:

Following staking, two hand trenches were dug and blasted across the east trending "A" skarn zone. The company reported assays of 0.35 per cent  $WO_3$  over ten feet in one trench. In a second trench 135 feet east of the first, assays of chip samples from five-foot intervals over 30 feet were from 0.10 to 0.56 per cent  $WO_3$ . Four trenches cut across the north trending "B" zone, one mile south of "A" were spaced at 75 feet, 250 feet and 175 feet. Assays were as follows:

<u>Trench</u>	<u>Width</u>	<u>% <math>WO_3</math></u>
1	7.00	0.14
2	4.75	2.26
3	5.00	2.86
4	4.00	0.01



MAX, MAR  
Dusty Mac Mines Limited  
433 - 355 Burrard Street  
Vancouver, British Columbia.

Lead, Silver, Zinc,  
Tungsten  
105 H 7  
(61°17'N, 128°44'W)

Reference: G.S.C. Map 6-1966.

Claims: MAX 1-40; MAR 1-32

Location and Access:

The claims lie 20 miles east of the south end of Frances Lake. They can be reached by a 24-mile access road that leaves the Nahanni Range road at Mile 47 and runs west through the Monarch Metal Mines Limited camp.

History:

Showings were first reported in 1964 and the area has been prospected sporadically since then. Shallow trenching, geological mapping and ground geophysical surveys were conducted in 1965 and 1968. Two diamond-drill holes of approximately 100 and 150 feet were drilled in 1968 to test a weak magnetic anomaly associated with mineralization. Trenching was carried out in 1970.

Description:

The area is underlain by sedimentary and volcanic rocks of Devonian-Mississippian age (unit 14, G.S.C. Map 6-1966). The main body of granitic rocks, mainly granodiorite and quartz monzonite, underlies the northern and western parts of the claims.

Isolated occurrences of galena, sphalerite are present and scheelite are present in skarn zones developed in metamorphosed calcareous sediments. Magnetite is locally present in these skarn zones.

Current Work and Results:

Field work during the 1972 season consisted of regional and detailed mapping, soil sampling, detailed magnetometer surveys over mineralized areas and some trenching. Several geochemical anomalies had minor associated sulphides and scheelite.

MATT, BERRY  
Matt Berry Mines Limited  
1102 - 347 Bay Street  
Toronto, Ontario.

Silver, Lead, Zinc  
105 H 6  
(61°28.5'N, 129°25'W)

References: Findlay (1967, p. 63; 1969b, pp. 47-48);  
Craig and Laporte (1972, pp. 126-127).

Claims: MATT, BERRY, JIM, LAP, APEX, DON

Location and Access:

The original Thompson Creek property is on the east side of the East Arm of Frances Lake, 95 miles north of Watson Lake. The Campbell Highway passes along the west side of the West Arm. Heavy freight has been barged, from points of road access to Frances Lake, to the property. Lighter servicing is by float-equipped aircraft.

History:

Known since the late 1930's, galena-sphalerite showings were explored by COMINCO in 1943 and Datalaska Mines Limited in 1960. Matt Berry Mines Limited acquired the property in 1965, did trenching and stripping that year, followed by 2,120 feet of diamond drilling in 14 holes in 1966. In 1970, the Joint Venture partners, Canadian Nickel Company Limited, Metallgesellschaft and Matt Berry Mines Limited, renewed the exploration with geophysical orientation surveys (EM, magnetometer and I.P.), geological mapping and geochemical sampling of soils and silts. Following this work additional claims were staked, the DON group north of the original property, the LAP group to the south and the APEX group on the west side of the East Arm. The Joint Venture drilled four holes, totalling 1,400 feet on the original property late in 1970.

Description:

The rocks on the east side of the East Arm are argillites and phyllites trending northwest and dipping moderately north-east. East of these a belt of hornfels 3,000 to 5,000 feet wide is adjacent to a granodiorite stock (unit 15, G.S.C. Map 6-1966). The sequence on the western shore consists essentially of phyllites with layers of calcareous phyllite and probable intermediate meta-volcanic rock. Above this is black phyllite similar to that on the eastern shore, with an apparent thickness of 1,500 to 2,000 feet. An intense schistosity is developed in the phyllites at a slight angle to the bedding which typically obscures the bedding. The axial planes of small folds and the schistosity trend north-northwest and dip east more gently than does the bedding.

Current Work and Results:

During the 1971 field season surface exploration was continued with a geochemical and magnetometer survey of the claims on the west side of the lake. The lead-zinc anomalies detected to date are consistent with downslope dispersion from

bedrock sources. No significant mineral occurrences were found on the western shore of the East Arm. Joint Venture geologists are confident that although the galena-sphalerite veins, lenses or layers of the original occurrence are discontinuous, they do occur in a restricted stratigraphic interval of 40 to 60 feet of black phyllite just above a grey phyllite. The lower ten feet of this interval is the most strongly mineralized.

#### SHELDON LAKE

ROG	Zinc
Hudson Bay Exploration and	105 J 15
Development Company Limited	(62°48'N, 130°55'W)
Box 4007	
Whitehorse, Yukon Territory.	

Claims: ROG 1-12

#### Location and Access:

The claims are about seven miles northeast of Mount Sheldon and two miles south of the North Canal Road and the South Macmillan River.

#### History:

The ROG claims were staked during the 1970 field season on the basis of favourable stream geochemical response. The following year the area was studied by means of soil geochemistry and the resulting anomaly, 1,500 feet long and 300 feet wide, was trenched.

#### Description:

The bedrock in this area of poor exposure is a cherty, graphitic argillite.

#### Current Work and Results:

During the 1972 field season the company put down five diamond drill holes totalling approximately 1,000 feet, and completed several hundred feet of bulldozer trenching. Results were largely negative.

## SUMMIT LAKE

HOWARDS PASS PROPERTY  
Canex Placer Limited  
1030 West Georgia Street  
Vancouver, British Columbia.

Lead, Zinc  
105 I 6  
(62°27'N, 129°10'W)

References: Blusson (1973); G.S.C. Map 8-1967

Claims: 450 claims

Location and Access:

The property lies along the crest of the Selwyn Mountains on the Mackenzie-Yukon border. Roughly half the claims are in the Mackenzie District. Access is by wheeled aircraft to a temporary airstrip on the property or by float plane to Summit Lake (12 miles from the site), which is 100 miles east-northeast of Ross River and 155 miles north of Watson Lake. The most northerly point on the Nahanni Range road (Cantung road) is 35 miles southeast

History:

Reconnaissance geochemistry was done in 1971. The initial showings of galena and sphalerite were discovered in July, 1972, and 450 claims were staked by the company between then and the end of August.

Description:

Galena and sphalerite occur in the Ordovician Road River Formation.

Current Work and Results:

A bulldozer was brought in late in the 1972 season and a series of open cuts were made across the mineralized zone.

COAL MINING AND EXPLORATION

WHITEHORSE MINING DISTRICT

CARMACKS COAL DISTRICT	Coal
Teslin Explorations Limited	115 I 1
5840 - 4th Street Southeast	(62°00'N to 62°15'N
Box 8592 Station F	136°00'W to 136°22.5'W)
Calgary, Alberta.	

References: Dawson (1887); Bostock (1936); Cairnes (1910); Craig and Laporte (1972, pp. 154-155)

Licences: Territorial Coal Exploration Licences No. 15, 16 and 17

Location and Access:

The three licence-areas are contiguous, forming a 175 square-mile area lying immediately east, northeast and northwest of the community of Carmacks, 100 miles north of Whitehorse. The Klondike Highway lies immediately west of the western boundary of Licence-area 17 and passes through Licence-area 16. Access for drilling at the Five Fingers Mine was by a 3.5-mile tote road from Mile 106.8 of the Klondike Highway. Access to the drill site on Licence-area 17 is by a 2.4-mile access road southwest from near the Klondike Highway bridge over the Yukon River at Carmacks.

History:

Coal has been known in the Carmacks area since at least as early as 1887 when G.M. Dawson noted coal occurrences at the Five Fingers and Tantalus sites. Five Fingers Mine (62°12'N, 136°19'W) was staked in 1898 and produced coal irregularly from then until 1908. The Tantalus Mine (62°05'N, 136°16'W), about 100 yards west of the south end of the Yukon River bridge at Carmacks, was staked in 1903 and between 1904 and 1927 produced roughly 7,000 tons per year, operated by the Five Fingers Coal Company.

Modern exploration for coal beds has been by Anvil Mining which staked leases over the old properties in 1965 and from 1966 to 1968 built access roads, did geological and topographic mapping, trenching and diamond drilling. During 1970, N.H. Ursel and Associates measured coal-bearing stratigraphic sections in the area and sampled the seam at the old Tantalus Mine. P.A. Hacquebard, of the Geological Survey of Canada, correlated this Tantalus seam with the main seam of the Tantalus Butte Mine on the basis of reflectance characteristics.

Description:

The area is underlain by Jurassic to Lower Cretaceous rocks of the Laberge Group and Tantalus Formation. The Laberge here consists of sandstone and shale with thin conglomerate beds; the Tantalus is largely conglomerate with minor sandstone and



shale. Structural pattern is one of tight, northwest-trending folds. The sediments are overlain by Mt. Nansen and Carmacks volcanics. Coal seams are present in the upper part of the Laberge and lower beds of the Tantalus Formation.

#### Current Work and Results:

During 1971 Teslin Exploration Limited built the access road to the Five Fingers Mine site and diamond drilled one hole to test the upper Laberge rocks. The hole penetrated strongly fractured sandstone from 118 to 188 feet and was abandoned at this depth.

A second hole was drilled 2.4 miles southeast of the Tantalus Mine site, to a depth of 310 feet cutting the base of the Tantalus Formation and testing the top of the Laberge. Seams less than one foot thick and a 10-foot seam with mudstone layers were cut in the upper part of the Laberge. During 1972 Teslin Exploration prepared a photo-geological map of the licence-areas.

TANTALUS BUTTE MINE  
Anvil Mining Corporation Limited  
Faro, Yukon Territory.

Coal  
115 I 1  
(62°08'N, 136°16'W)

References: Bostock (1936a, pp. 59-62); Wheeler (1961, p. 74); Green (1966, pp. 121-122); Findlay (1967, p. 88; 1969a, p.114; 1969b, pp. 66-67)

#### Location and Access:

The mine and storage facility are about 3 miles north of Carmacks, one-half mile east of the Klondike Highway.

#### History:

The Tantalus Butte Mine two miles north of the Tantalus Mine site operated from 1923 until 1967, supplying coal to Carmacks, Dawson City and United Keno Hill Mines north of Mayo. Anvil Mining Corporation Limited re-opened the mine in July 1969, producing 80 tons of coal per day, which is used at the Anvil Mine for plant heating and concentrate drying.

#### Description:

The coal at Tantalus Butte Mine is in the lower part of the Tantalus Formation. The main seam is 8 to 20 feet thick, strikes north and dips 45 to 59 degrees west. It is cut by northeast-trending, steeply southeast dipping faults. The coal rank is high volatile bituminous C, 11,000 to 12,000 BTU per lb.

#### Current Work and Results:

The mine continues to produce roughly 80 tons per day. During 1972 an exploration cross cut was driven west from the mine area to confirm drill intersections on a promising coal seam.

Operating Summary is as follows:

	1971	1972
Mined (tons)	21,026	18,435
Rate (tons/day)	83	80

NORDENSKIOLD COAL AREA  
Arjay Kirker Resources Limited

Coal  
115 H 8, 105 E 5  
(61°18'N, 136°02'W)

References: Bostock (1934, Map 372A); Cairnes (1910);  
Craig and Laporte (1972, pp. 157-158)

Licences: Territorial Coal Exploration Licences No. 10, 11, 12

Location and Access:

The area is roughly 50 miles north of Whitehorse and 18 miles southwest of Braeburn (Mile 55 of the Klondike Highway). Access is from Braeburn, 13 miles south on the old Whitehorse-Dawson winter road and 4 miles west on a tote road built in 1970. The road is suitable for 4-wheel drive vehicles.

History:

During 1907, D.D. Cairnes examined three coal seams on the north side of Division Mountain and one roughly 3 miles to the northwest on Red Ridge.

In 1970 Arjay Kirker Resources did reconnaissance mapping on the Licence-areas and sampled the seams on Division Mountain. Five hundred and fifty feet of bulldozer trenches were cut for measurement and sampling of the coal. Coal was recognized in a 1,000 foot stratigraphic interval, part of which is covered in the 150 feet trenched. Eight coal seams had an aggregate thickness of 61 feet.

Description:

Jurassic Laberge Group sandstone and shale containing coal seams and minor pebble conglomerate are disconformably overlain by Lower Cretaceous Tantalus Formation chert and volcanic pebble conglomerate. Structural pattern is one of upright to slightly northeast overturned, northwest-trending folds. The Laberge outcrops on Division Mountain, on the northeast limb of a syncline, strikes north 50 degrees west and dips 60 to 70 degrees southwest. Cretaceous Hutshi Group andesite overlies the sedimentary rocks and is present within the units as sills and dykes.

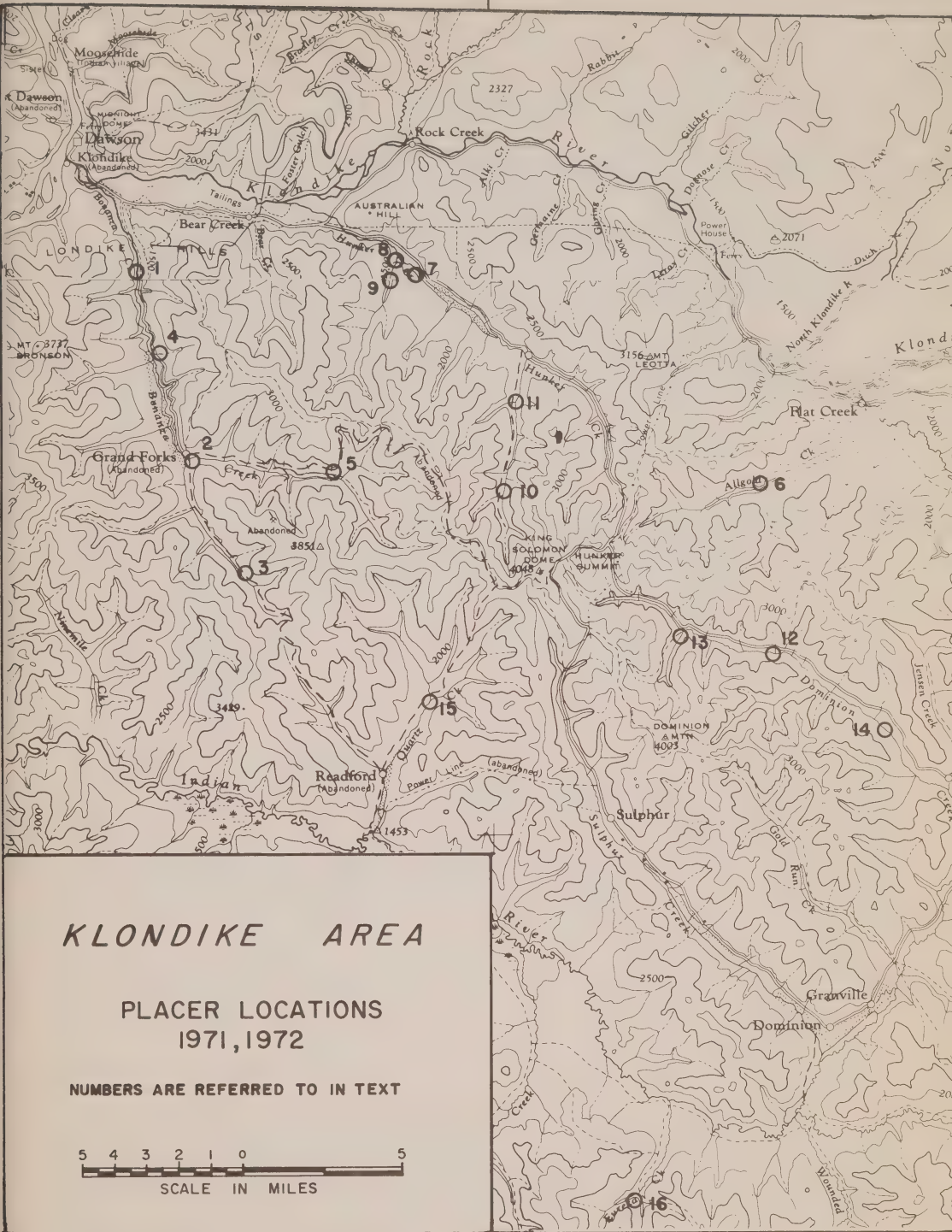
### Current Work and Results:

In 1971 Arjay Kirker Resources Limited did a test I.P. survey over known coal outcrops on Division Mountain (Licence-area No. 10) with essentially negative results.

During 1972 the company diamond drilled the Division Mountain occurrence with six holes totalling 3,435 feet, trenched the most promising seam found to date, the Cairnes seam, and put in four shallow trenches 3 miles to the northwest, on Red Mountain, testing for continuation of the Division Mountain coal. The drilling and surface work demonstrated that the Cairnes seam is 1,500 feet stratigraphically below the base of the Tantalus on Division Mountain. The coal outcrops on Red Ridge are 800 feet below the base of the Tantalus. The Cairnes seam, 30 feet thick in outcrop, including two narrow, purple shale layers, is 31.6 feet thick in Hole No. 1, and, 1,500 feet to the northwest, is separated into two beds 1.9 feet and 15.4 feet thick respectively, with 11.4 feet of shale and sandstone between (Hole No. 6). Down dip the coal seam is reduced to one-half its thickness as measured in outcrop and Hole No. 1. A second seam lies 25 feet stratigraphically below the Cairnes seam and is demonstrated in both Hole No. 1 and Hole No. 6 to be 6.5 feet thick. Above the Cairnes seam, interbedded with the shale and sandstone, 27 seams were recognized, ranging in thickness from 0.6 to 8.0 feet. Thickness of these seams changes markedly down dip.

Reserves were calculated for the Cairnes seam using three blocks in which the seam is considered to be 30, 20 and 15 feet thick respectively from Hole No. 1 to Hole No. 6. Included are 500-foot projections beyond the 2,500-foot drilled interval and thicknesses within each block are considered to persist for 1,250 feet down dip. Reserves so calculated are 2.8 million tons with good potential for further reserves along strike.

The coal is low sulphur bituminous rank, 9,400 BTU per lb.



PLACER MINING

DAWSON MINING DISTRICT

KLONDIKE AREA

- (1) S. Berg 116 B 3  
Bonanza Creek (64°00'N, 139°22'W)

Mr. S. Berg owns nine claims on Bonanza Creek. During 1971 and 1972 he prepared ground for future mining, stripping the bench on Sourdough Hill, on the left limit of Bonanza, 400 feet above the creek. He operated with one D-7 and one TD-24 bulldozer.

- (2) A.T. Fry 115 0 11  
Bonanza Creek (63°37'N, 139°22'W)

References: Findlay (1967, p.75;1969a, p.75;1969b, p.55)  
Craig and Laporte (1972, p.144)

Mr. and Mrs. Fry continued mining on Bonanza Creek at Grand Forks, stripping with a monitor and feeding sluice with a D-7 bulldozer. These operators worked only part-time in the 1972 season.

- (3) J. Lamontagne 115 0 14  
Eldorado Creek (63°51'N, 139°15'W)

References: Craig and Laporte (1972, p.147)

Mr. Lamontagne mines on Eldorado Creek between Gay Gulch and Chief Gulch: he moved to this 28 claim property in 1970. During 1970, 1971 and 1972 he stripped up to 45 feet of overburden using spring run-off and a D-6 bulldozer in preparation for future mining.

- (4) J. and R. Archibald 115 0 14  
Bonanza Creek (63°58'N, 139°20'W)

References: Findlay (1969a, p.96; 1969b, p.56);  
Craig and Laporte (1972, p.144)

The Archibald brothers mined high bench right limit gravels, 135 feet above Bonanza Creek on claims 39 and 40 Below Discovery. They used a diesel driven pump to provide water, moving 2,000 cubic yards of gravel with a TD-40 bulldozer in 1971 and 3,000 cubic yards in 1972 with a D-6 bulldozer.



- (5) F. Perret 115 0 14  
Bonanza Creek (63°55'N, 139°13'W)

References: Findlay (1967, p.76;1969a, p.97; 1969b,p.56)  
Craig and Laporte (1972, p.145)

Mr. Perret holds claims on upper Bonanza Creek below the mouth of Victoria Gulch. Using an automatic gate and two TD-18 bulldozers this operator continued his right limit stripping in 1971, stripped in 1972 and sluiced a small amount of material, recovering 62 crude ounces of gold.

- (6) K. and S. Placers 115 0 15  
Allgold Creek (63°56'N, 138°59'W)

References: Findlay (1967, p.79;1969a, p.103;1969b,p.60)  
Craig and Laporte (1972, p.147)

Mr. M. Kinakin holds the lower three miles of Allgold Creek consisting of Discovery claims and claims 1 to 30 A/D. Working with a D-7 bulldozer in each of 1971 and 1972 he mined 25,000 cubic yards of gravel, in full width cuts, 50 to 100 feet wide and 100 feet long, the work being done on claims 4 and 5 A/D.

- (7) A. Kosuta 116 B 3  
Eighty Pup (64°00.5'N,139°05'W)

Reference: Craig and Laporte (1972, p.146)

Mr. Kosuta owns four claims near the mouth of Eighty Pup, a left limit tributary of Hunker Creek, which cuts Preido Hill. Gold-bearing gravels occur at four levels on the property, the highest being a ridge about 50 feet above the Hunker Creek valley bottom. Beside this ridge and ten feet below are gravel-filled channels, followed successively by a bench and low gravels adjacent to dredge tailings off Hunker Creek.

During 1971 the operator, using a D-6 bulldozer, put in one cut 40 feet long by 65 feet wide; in 1972 he worked the property part-time and did little sluicing. About 30 feet of muck and slide rock were stripped and the lower three to five feet of gravel were sluiced.

- (8) Miben Mining Limited 116 B 3  
Dago Hill (64°00'30'N,139°06'W)

Principals of this company, M. Stutter and B. Warnsby in 1972 obtained and assembled equipment for a hydraulic operation on property consisting of 32 bench claims on the west side of Dago Hill, left limit of Hunker Creek 2-1/2 miles above the mouth. Pumping of Hunker Creek water is in two stages by diesel driven turbine pumps, one providing 230 feet of head, the second 130 feet. Capacity is 4,500 gallons per minute.

Test drilling established these bench gravels to be 45 to 90 feet thick with gold distributed throughout the section, fine in the upper part, coarser near bedrock.

- (9) I. C. Bremner 116 B 3  
Last Chance Creek (64°00'N, 139°07'W)

Reference: Craig and Laporte (1972, p.148)

Mr. Bremner works with a gravity-monitor system on a left limit bench of Last Chance Creek, here the downstream end of Discovery Hill. Water is brought five miles by ditch from the upper left limit tributaries of Last Chance Creek, stored in a shallow pond and dropped 50 feet by a ten inch diameter pipe. The four inch diameter monitor is used to undercut the bench gravel, which has a face of up to 50 feet, and to wash the gravel into the sluice. Floor of the cut is a grey clay resulting from the decomposition of a volcanic tuff bedrock.

- (10) M. Crockett 115 O 15  
Gold Bottom Creek (63°54'N, 138°59'W)

References: Findlay (1967,p.77;1969a, p.100;1969b,p.58)  
Craig and Laporte (1972, p.145)

During 1971 Mr. Crockett continued mining upper Gold Bottom Creek. During 1972 he drill tested claims on lower Hunker Creek.

- (11) O. and M. Lunde 115 O 15  
Gold Bottom Creek (63°55'N, 138°59'W)

References: Findlay,(1967,p.77;1969a, pp.99-100;  
1969b, p.58)  
Craig and Laporte (1972, p.145)

Mr. and Mrs. Lunde mined on Gold Bottom Creek, a left limit tributary of Hunker Creek, during 1971 and 1972, working with a D-6 bulldozer, they stripped 12 to 20 feet of muck and sluiced three feet of gravel and two feet of schist bedrock from 30,000 bedrock square feet each year.

- (12) A. and N. Sailor 115 O 15  
Dominion Creek (63°48'N, 138°35'W)

Mr. and Mrs. Sailor mine a left limit bench on lower Dominion Creek below Nevada Creek. During 1971 and 1972 they stripped with monitor and D-6 bulldozer. Gravels are ten to 15 feet deep.

- (13) A. and N. Burgelman 115 0 15  
Dominion Creek (63°46'N, 138°34'W)

References: Findlay (1967, p.77; 1969a, p.100;  
1969b, p.58)  
Craig and Laporte (1972, p. 146)

Mr. and Mrs. Burgelman hold ground on Allgold Creek, lower Dominion Creek and Caribou Creek (a right limit tributary of Dominion). During 1971 and 1972 they sluiced on the Dominion Creek claims upstream from the mouth of Jenson Creek.

- (14) Ballarat Mines Limited 115 0 14  
Dominion Creek

References; Findlay (1967, pp.72-73; 1969a, pp.92-93  
1969b, p.55)  
Craig and Laporte (1972, p.143)

This company, owned and operated by Mrs. M. H. Schmidt of Dawson City, owns 14 claims and leases 48 contiguous claims of Yukon Consolidated Gold Corporation, on lower Dominion Creek. During 1971 and 1972 the company continued bulldozer-sluicing on claims 5, 6 and 7 above Lower Discovery.

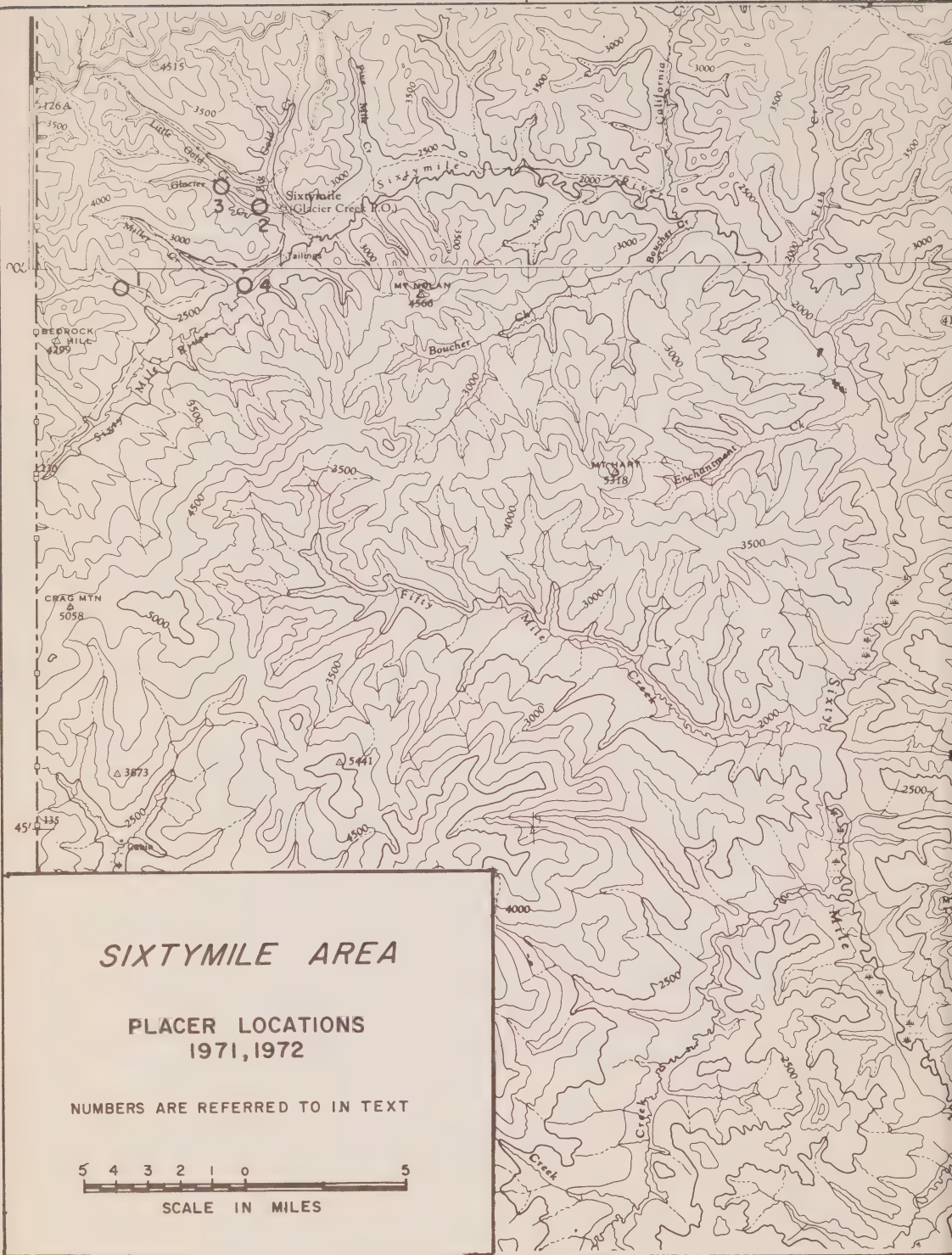
- (15) R and L. Mining Company 115 0 14  
Quartz Creek (63°48'N, 139°04'W)

J. Lacross and W. Rasmusson operate on Quartz Creek below the mouth of Little Blanche Creek. In 1970 Rasmussen began stripping the claims using a D-9 Bulldozer. This work, continued in 1971 and 1972, included stripping of 22 to 24 feet of muck and digging a three quarter mile bedrock drain. Gravels are six to eight feet deep.

- (16) L. M. Ross 115 0 10  
Eureka Creek (63°35'N, 138°52'W)

Mr. Ross owns claims 12-20 above Left Fork Discovery. Working part-time during each of 1971 and 1972 he did stripping and mined one cut, full width of the creek, roughly 120 feet, by 100 feet long. Overburden is 12 feet thick; the underlying pay gravels are five to ten feet thick. Material is moved with a D-8 bulldozer.

140° 30'





SIXTYMILE AREA

- (1) S. Prohaszka 115 N 15  
Bedrock Creek (63°59'N, 140°56'W)

S. Prohaszka, who formerly mined on Dominion Creek, purchased ten claims on Bedrock Creek from E. Faucher in 1971. These lapsed, were restaked as part of a two mile prospecting lease and converted back into claims. Mr. Prohaszka staked a further two mile prospecting lease upstream from his claims. This operator works with a D-7 bulldozer and one yard capacity dragline. Inactive in placer mining in 1971, Mr. Prohaszka did stripping of ten feet of sand and gravel on the upstream two claims of his group in preparation for future sluicing.

- (2) Glacier Creek Placers 116 C 2  
Glacier Creek (64°02.2'N, 140°49'W)

References: Findlay (1969a, p.104; 1969b, p. 61)  
Craig and Laporte (1972, p.149)

L. Grimard and E. Faucher, owners of Glacier Creek Placers, continued to work a left limit bench of Glacier Creek on claims 7 and 8 during 1971 and 1972. The section consists of two to four feet of pay gravel on bedrock, overlain by 35 feet of clay. The partners mined roughly 60,000 bedrock square feet during these years using two D-6 bulldozers. Water shortage restricts sluicing to about two hours per day.

- (3) J. Lynch 116 C 2  
Glacier Creek (64°02'N, 140°53'W)

References: Findlay (1969a, p.105; 1969b, p.61)  
Craig and Laporte (1972, p. 150)

Mr. Lynch continued mining during 1971 and 1972 on Grimard Discovery and Faucher Discovery claims on Glacier Creek. Operating with two D-7 bulldozers, Mr. Lynch mines the bottom few feet of gravel and the top several feet of the deeply weathered bedrock.

- (4) Sixtymile Enterprises Limited 116 C 2  
Sixtymile River (64°00'N, 140°46'W)

Sixtymile Enterprises Limited, owned and operated by Mr. W. Yaremicio started mining on the Sixtymile River in 1971, on ground formerly held by North American Trading & Transportation Company. This operator works a left limit bench of the Sixtymile River from the mouth of Miller Creek to the mouth of Big Gold Creek. Using a D-7 bulldozer he mined a bench strip 600 feet by 100 feet during 1971 and 1972, sluicing virgin gravels and the top foot of bedrock.





MAYO MINING DISTRICT

- (1) Bardusan Placers Limited 105 M 14  
Thunder Gulch (63°55'N, 135°15'W)

References: Findlay (1969a, pp.111-112; 1969b, pp.64-65)  
Craig and Laporte (1972, p.151)

H. Barchan owned eight claims on Thunder Gulch, the first being 1,000 feet up from Lightning Creek. In 1969 he staked a one mile prospecting lease immediately upstream from the claims and converted this to ten claims in 1972. During 1971 and 1972 he mined the No. 3 claim, using a D-6 bulldozer and 3/4 cubic yard capacity shovel, stripping slide rock overburden and sluicing 15 to 20 feet of gravel.

- (2) F. Taylor 106 D 4  
Haggart Creek, Dublin Gulch (64°02'N, 135°50'W)

References: Findlay (1967, pp.83-84; 1969a, p. 108;  
1969b, pp.63-64)  
Craig and Laporte (1972, p.151)

Mr. F. Taylor held a seven claim property on Dublin Gulch upstream from the mouth. He mined this intermittently since 1937; in the early years by hand, in later years by a highly efficient monitor and bulldozer system. His last full year of operations was 1970. During 1971 he did minor ground sluicing and sold the property in the fall to D. Duensing and R. Holway.

- (3) D. Duensing and R. Holway 106 D 4  
Dublin Gulch (64°02'N, 135°50'W)

References: Findlay(1967, pp.83-84; 1969a, p.108;  
1969b, pp.63-64)  
Craig and Laporte (1972, p.151)

These men purchased Taylor's property in 1971 and mined in 1972. They put in right limit cuts, sluicing 15,000 cubic yards of gravel having an average depth of nine feet and recovering approximately 400 crude ounces of gold. Fine scheelite and jamesonite are abundant in the placer concentrates.

- (4) E. C. Bleiler 115 P 16  
Hight Creek (63°50'N, 136°20'W)

References: Findlay (1967, pp.83-84; 1969a, p.108  
1969b, pp.63-64)  
Craig and Laporte (1972, p.151)

Mr. Bleiler operates with a four inch monitor, gravity fed with an 80 foot head from a ditch on the right limit of Hight Creek. The 30 foot gravel bank is caved by the monitor and washed to the sluice.

- (5) K. Djukestein 105 M 13, 106 D 6  
Haggart Creek  
Upper Duncan Creek 106 D 4  
(64°01'N, 135°51'W)  
105 M 14  
(63°52'N, 135°15'W)

References: Findlay (1967, pp.82-83; 1969a, p.106;  
1969b, p.62)  
Craig and Laporte (1972, p.150)

Mr. Djukestein, operating Spruce Creek Placers on Haggart Creek ceased operations in July 1971 after making two cuts by monitor and recovering 130 crude ounces gold. He moved to upper Duncan Creek, trenched by D-8 bulldozer, sluiced 12 hours and recovered ten crude ounces gold. No mining was done in 1972.

#### WHITEHORSE MINING DISTRICT

##### KLUANE AREA

- (1) Burwash Mining Company Limited 115 G 6  
Tatamagouche Creek (61°22.5'N, 139°17'W)

References: Findlay (1967, pp.86-87; 1969a, pp.112-113;  
1969b, p.65)  
Craig and Laporte (1972, p.152)

Mr. H. Besner made centre cuts on claims 2 and 3 above the mouth of Tatamagouche Creek in 1971 and 1972, feeding the sluice with a 3/4 yard shovel and stacking tailings with a D-8 bulldozer. Both platinum and copper nuggets are recovered with the gold, platinum production being roughly 1 percent of gold in value.

(2) H. Thorsen 115 B 15  
Bullion Creek (60°58.5'N, 138°39'W)

References: Findlay (1967, p. 87; 1969a, p.113  
1969b, pp.65-66)  
Craig and Laporte (1972, p.152)

Mr. H. Thorsen mined during part of the 1971 season,  
sluicing ground that was formerly hand mined. Gravel is about  
eight feet deep.

APPENDIX A

Reports accepted for assessment credit - 1971 and 1972

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-00-130-29 105 B 1	LUCK Cone Mountain Mines G.E. White	08/03/73	Geochem
60-02-130-30 105 B 1, 2	L, LOLA Mark V. Mines D. Arscott	21/10/71	Geol, Geochem
60-10-131-06 105 B 2, 3	SAM, DAN, WET, MAX Boswell River Mines Geophysical Contractor and Consultants	06/04/71	Airborne Mag
60-10-131-06 105 B 2, 3	SAM, DAN, WET, MAX Boswell River Mines MacDonald Consultants	14/04/71	Preliminary Rpt or Evaluation Rpt
60-14-131-18 105 B 2, 3	OMO, LUX, TIDE, NEIL Boswell River Mines MacDonald Consultants	14/10/71	EM
60-09-131-00 105 B 2, 3	LUX, OMO Boswell River Mines P.J. Fominoff, J.G. Baird	15/10/71	EM
60-14-131-18 105 B 3	H Wolf Lake Joint Venture R.J. Cathro	01/10/71	Geol, Geochem
60-30-131-40 105 B 4	NITE Wolf Lake Joint Venture R.J. Cathro	07/07/72	Geol, Geochem, Trenching, Drilling
60-35-134-24 105 B 9	HAWK, NICH Ogilvy 1971 Joint Venture A.C. Ogilvy	05/10/71	Exam
60-37-130-25 105 D 9, 10	RED Boswell River Mine R.O. Crosby, J.P. Steele (Seigel Assoc.)	20/05/71	Geophys
60-37-130-33 105 B 10	TUNG Wolf Lake Joint Venture R.J. Cathro	05/09/71	Geol, Geochem
60-43-131-45 105 B 12	MUNG Wolf Lake Joint Venture Archer, Cathro	07/07/72	Geol, Geophys, Geochem
60-11-135-23 105 D 3	RACA Archer, Cathro & Assoc. A.R. Archer	21/02/72	Geol, (Sampling)



Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-11-135-23 105 D 3	RACA Secord Investments Ltd. and Laura Dev't. M.P. Phillips	22/05/73	Rock Geochem
60-20-135-20 105 D 6	WAT, SON, RIV Phelps Dodge Corporation of Canada R.R. Culbert	20/09/71	Geol
64-15-134-15 105 D 8	CON Rackla River Mines Ltd. A. Allan	14/06/73	Geol, Geochem
60-35-134-45 105 D 10	AZ, AC, TOADSTOOL Lewes River Mines R.W. Cannon	13/01/71	Geophys
60-39-134-49 105 D 10	VIC Lewes River Mines A.R. Archer	06/10/71	Geol, Geochem
60-40-135 105 D 10, 11, 14	COWLEY PARK, WAR EAGLE New Imperial Mines D. Tenney	18/01/71	Geochem
60-41-135-09 105 D 11	PRINCE, SUE, SNELL Whitehorse Copper Mines D. Tenney	31/12/71	Geophys
60-36-135-39 105 D 12	ARK Canadian Occidental Petroleum C.F. Gleeson	13/10/72	Geol, Geochem
60-15-136-22 115 A 8	GREEN EAGLE, JOY Charta Mines G.G. Carlson, R.G. Hilker	15/10/71	Geol, Geochem, Geophys
61-15-128-40 105 H 2	VAGAS Welland Consolidated Mining Turnex Exploration Services	23/12/71	Mag, Geochem
61-30-129-30 105 H 6	MATT, BERRY Joint Venture CANICO Thalenhorst <u>et al</u>	22/03/71	Geol, Geophys
61-17-128-44 105 H 7	MAX, MAR Dusty Mac Mines Ltd. J.R. Glass	02/11/72	Geol, Geophys, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-37-128-21 105 H 9	BROD Wye Lake Resources H.S. Aikens	24/07/72	Exam Rpt
61-50-128-55 105 H 15	TANYA Turner, Pete, Coutts G.L. Lamont	11/07/72	Mag
61-40-130-55 105 G 10	BOT Atlas Explorations T.J. Adamson	29/07/71	Mag, Trenching
61-32-131-33 105 G 12	HOO South Yukon Joint Venture A.R. Archer	24/05/73	Geol, Geochem
61-27-132-26 105 F 8	CPA Charta Mines R.G. Hilker	21/10/71	Geol, Geochem, Geophys
61-57-133-27 105 F 14	PAT Conwest Exploration W.G. Grant	10/10/72	Geol
61-04-135-03 105 E 3	KART Caltor Syndicate M.P. Phillips	06/09/72	Geochem, E.M.
61-37-136-11 115 H 9	ALP Archer, Cathro & Assoc. R.J. Cathro	26/07/72	Geol, Geochem
61-37-136-11 115 H 9	ALP B.A. Copper Mines Ltd. A.R. Archer	/06/73	Geol, Geochem
61-29-136-45 115 H 7	KL Mitsubishi Metal Mining Geoterrex	09/02/71	I.P.
61-50-137-45 115 H 3	THATCH Canadian Occidental Petroleums D.M.S. Bhatia, C.F. Gleeson	26/10/72	Geol, Geochem
61-25-139-30 115 G 5,6	AMP Nicanex Mines T.L. Sadlier-Brown	04/02/71	Geochem
61-28-138-08 115 G 8	A, B, K Phelps Dodge Corporation of Canada	15/03/71	Geol, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-29-138-12	ED, ADD Phelps Dodge Corporation of Canada	15/03/71	Geol, Geochem
115 G 8	F.M. Smith		
61-40-128-20	BIR Canadian Occidental Petroleums	26/10/72	Geol, Geochem
115 G 9	W.D.B. Weinfield, C.F. Gleeson		
61-52-138-33	MAX Imperial Oil Enterprises	07/04/72	I.P.
115 G 15	P.E. Walcott		
61-52-138-33	MAX Imperial Oil Enterprises	07/04/72	Geol, Geochem
115 G 15	Trigg, Woollett & Assoc.		Diamond Drilling
61-53-138-39	ONI Canadian Occidental Petroleums	20/10/72	Geol, Geochem
115 G 15	J.T. Neelands, C.F. Gleeson		
61-50-138-25	RYE Canadian Occidental Petroleums	20/10/72	Geol, Geochem
115 G 16	C.F. Gleeson, D.M.S. Bhatia		
61-36-138-20	TYR Canadian Occidental Petroleums	26/10/72	Geol, Geochem
115 G 16	C.F. Gleeson, D.M.S. Bhatia		
61-50-140-33	LEP Imperial Oil Enterprises	24/08/71	Mag
115 F 15	R.W. Oddy		
61-50-140-33	LEP Imperial Oil Enterprises	14/09/71	I.P.
115 F 15	P.E. Walcott		
61-58-140-46	RAY Imperial Oil Enterprises	14/09/71	Geol
115 F 15	R.W. Oddy		
62-43-131-53	PDR Phelps Dodge Corporation of Canada	03/12/71	Geol, Geophys Geochem
105 J 12	R.R. Culbert		
62-51-131-38	PDM Phelps Dodge Corporation of Canada	10/11/72	Geol, Geochem, Geophys
105 J 13	R.G. Hilker		

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-48-132-55 105 J 15	ROG Hudson Bay Exploration and Development R.T. McIntosh	17/05/72	Geochem, Diamond Drilling
62-05-132-40 105 K 2	SANK, TOP Citex Mines S.V. Ramani	19/03/71	Mag
62-07-132-47 105 K 2	ACME Dynasty Explorations Ltd. P. Dean	02/12/71	Geol, Geophys
62-12-132-45 105 K 2	CAPA, ECHO, DELTA Dynasty Explorations Ltd. J.S. Brock, P. Dean	/07/72	Geol, Geochem, Gravity, Mag
62-12-132-45 105 K 2	CAPA, ECHO, DELTA Dynasty Explorations Ltd. J.S. Brock, W.J. Roberts	/01/73	Geol, Geochem, Gravity, Turam, Mag, D.D.
62-15-132-44 105 K 2,7	FOTO Dynasty Explorations Ltd. W.J. Roberts	25/06/73	Geol, Geochem, Geophys
62-06-133-13 105 K 3	LYN Kerr-Addison Mines R.B. Galeski	17/09/71	Gravity
62-18-133-00 105 K 3	HO HO, BRAM Dynasty Explorations Ltd. J.S. Brock, P. Dean	22/02/72	Geol, Geochem, Geophys
62-25-134-00 105 K 5	MARK Canadian Reserve Oil & Gas Overland Explorations Services	16/08/70	Gravity
62-25-133-55 105 K 5	LEE Canadian Reserve Oil & Gas Overland Exploration Services	16/08/71	Gravity
62-25-133-45 105 K 5	LORNA Dynasty Explorations Ltd. W.J. Roberts	29/07/71	Geol, Geophys, Geochem, Diamond Drilling
62-25-133-50 105 K 5	JEAN Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geophys
62-27-133-48 105 K 5	GRAN Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geol, Geophys, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-26-133-43 105 K 5	ROTO Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geol, Geophys, Geochem
62-35-133-45 105 K 5	ROTO, GRAN Dynasty Explorations Ltd. J.S. Brock	23/06/72	Geol, Geophys, Diamond Drilling
62-25-133-50 105 K 5	MARK Canadian Reserve Oil & Gas Overland Exploration Services	07/07/72	Gravity
62-28-133-21 105 K 6	TRY Spartan Explorations J.S. Vincent	14/01/72	Geol
62-25-133-10 105 K 6	ZAN, MX, AC, KO, JIM, JET Kangaroo Exploration Corporation P.E. Walcott	18/02/71	Geophys
62-25-133-10 105 K 6	ZAN, MX, AC, TIM Kangaroo Exploration Corporation J.G. Simpson, Ian Turnbull	18/02/71	Geochem, Diamond Drilling
62-25-133-08 105 K 6	ZAN, TAF Kangaroo Exploration Corporation P.F. Lewis, J.G. Simpson	14/03/73	Geol
62-27-131-13 105 K 11	TIM, AM, KD Kangaroo Exploration Corporation R.B. Galeski	11/09/72	Gravity
62-27-133-13 105 K 11	TIM, AM, KD Kangaroo Exploration Corporation P.E. Walcott	11/09/72	E.M.
62-37-133-35 105 K 12	BLUE, COLT Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity
62-37-133-42 105 K 12	BLUE Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity
62-35-134-15 105 L 9	ARROW Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity



Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-35-134-15	ARROW Canadian Reserve Oil & Gas	02/09/71	Gravity
105 L 9	Overland Exploration Services		
62-39-134-00	ARROW, MARK, LEE, ALTA KING, COLT, BLUE Canadian Reserve Oil & Gas	14/12/72	Geol, Geochem, Geophys, (I.P.)
105 L 9	T.J. Adamson <u>et al</u>		
62-15-137-25	TRI, TOP Kennco Explorations (Western)	22/09/71	Geochem
115 I 3	K.A. Grace		
62-15-137-45	CHART Charta Mines	01/01/71	Geol
115 I 4	R.G. Hilker		
62-15-137-45	CHART Charta Mines	12/01/72	Geol, Geochem, Geophys
115 I 4	R.G. Hilker		
62-26-137-47	STAR Starbird Mines	27/05/71	Mag, Geochem
115 I 5	Geo X Surveys		
62-15-137-50	PDY Phelps Dodge Corporation of Canada	19/07/71	Geol, Geochem
115 I 5	F.M. Smith		
62-27-137-46	PRO Occidental Minerals Corporation of Canada	14/09/71	Geol, Geochem
115 I 5	G.C. Allebone, P.N. Mehrotre		
62-22-136-43	BOY, MAN, MAC, DUN Archer Cathro & Assoc.	15/03/71	Geol, Geochem
115 I 7	A.R. Archer		
62-16-136-41	BOY, WAR, WILL, MAC, MAN DVN, TK, TODAY, ZORO Dawson Range Joint Venture	09/05/73	Diamond Drilling Trenching, Geochem
115 I 7	A.R. Archer		
62-23-136-37	TK Mitsubishi Metal Mining	08/06/71	Geochem
115 I 7	Archer, Cathro & Assoc.		
62-20-136-37	TASLAR Taseko Mines LaRonge Mining	23/11/71	Geochem
115 I 7	G.A. Dirom		

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-17-136-37 115 I 7	WET Minto Mining Ltd. F.J.L. Guardia	20/12/72	Geochem
62-38-137-15 115 I 11	DEF United Keno Hill Mines R.J. Joy, R.E. Van Tassell	18/07/72	Geol, Geochem, Geophys
62-40-137-13 115 I 11	B, SEE Consolidated Standard Mines A.R. Archer	06/09/72	Geol, Geochem
62-39-137-08 115 I 11	AL Northair Mines A.R. Archer	06/09/72	Geol, Geochem
62-38-137-20 115 I 11	WAIN Wainoco Oil A.R. Archer	07/09/72	Geol, Geochem
62-42-137-16 115 I 11	ORI NRD Mining A.R. Archer	24/10/72	Geol, Geochem
62-35-137-52 115 I 12	GB Alrae Engineering Alrae Engineering	08/01/71	Geol, Geochem
62-35-138-00 115 I 12 115 I 9	TAD International Mine Services D.H. Waugh	13/01/71	Geochem, Geophys
62-38-137-50 115 I 12	HAYES Delta International Mines G. Guttrath	18/01/71	Geol, Geochem
62-49-137-18 115 I 14	PELLY Occidental Minerals Corporation of Canada D. Mutter, P. Mehrotra, C.F. Gleeson	23/09/71	Geol, Geochem
62-48-137-20 115 I 14	DARY, PELLY Occidental Minerals Corporation of Canada P.E. Walcott	31/10/72	Mag, I.P.
62-49-137-18 115 I 14	PELLY, DARY, PRAT Canadian Occidental Petroleums P.N. Mehrotra	03/01/73	Geochem
62-18-138-50 115 J 7	KLOT, CHRIS Occidental Minerals Corporation of Canada J.T. Neelands, P.N. Mehrotra, C.F. Gleeson	27/09/71	Geol, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-25-138-28 115 J 8	TOM (SOMME) Dawson Range Joint Venture A.R. Archer	08/03/71	Geol, Geochem
62-37-138-28 115 J 9	DR, PATSY White, Hosford & Impey		Topographic Map
62-40-138-32 115 J 10	AXE, HILL Montana Mines B.C. Fulcher	18/01/71	Geol, Geochem
62-41-138-58 115 J 10	FIJI Selco Exploration D.C. Findlay	15/02/71	Geochem
62-45-138-55 115 J 10	AZTEC, SQUAW, TLINGITS Trans Columbia Explorations	30/09/71	Geol, Geochem
62-48-138-52 115 J 15	CAN, TIP TIN, ROSS, GENE Acroll Oil & Gas	19/02/71	Geophys
62-45-138-30 115 J 15	FOLLY, RAIN Brewster Lake Mines White, Radvak & Assoc.	19/02/71	Geochem
62-56-138-31 115 J 15	C Silver Standard Mines Ltd. R.C. McMichael	05/03/73	E.M. Geol, Geochem
63-20-131-17 115 O 6	SCOT Atlas Explorations T.J. Adamson	23/02/71	Geol, Geochem
63-40-131-30 105 O 12	HORN Canadian Industrial Gas & Oil Ltd. H. Morgensen	12/02/71	Geol
63-40-132-02 105 N 9	PLATA Dynasty Explorations W.J. Roberts P. Lane	14/06/72	Geol, Geochem, Aerial Photography Geophys, Trenching Diamond Drilling
63-54-135-41 105 M 13	ALBERTA, YUKON Spartan Aero Ltd. R.W. Stemp	05/03/73	E.M.
63-58-135-06 105 M 14	DUNCAN, AVENUE Canadian Reserve Oil & Gas T.J. Adamson	/12/72	Geol, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
63-57-135-11 105 M 14	LADIE, SILVERQUEEN Canadian Reserve Oil & Gas Spartan Aero	28/03/72	Geophys
63-45-136-57 115 P 10,15	LUGDUSH Archer, Cathro & Assoc. R.J. Cathro	15/02/72	Geochem, Prospecting
63-50-137-04 115 P 14	NOP United Keno Hill Mines R.J. Joy, R.E. Van Tassell	03/03/72	Geol, Geochem
63-50-136-45 115 P 15	TED Quintana Minerals Corporation	17/03/73	Geol, Geochem Mag
63-47-136-15 115 P 16	DARK International Minerals & Chemicals H.P. Pilkington	12/11/71	Geochem
63-11-139-53 115 O 4	NICK Rainbow Lake Explorations J.P. Elwell, D.C. Findlay	08/01/71	Evaluation
64-00-139-00 115 O 14,15	DAW,HUN,SON,NUG, SUL,ROD,PUP,JEN Sullivan & Rodgers	03/07/73	Geol, Geochem
63-00-140-15 115 N 1	LIBRA Marguerite Lake Mines R.K. Watson	12/03/71	Airborne Mag
63-29-140-55 115 N 7	LAD Occidental Minerals Corporation of Canada P. Mehrotra, C.F. Gleeson	13/09/71	Geol, Geochem
64-08-134-57 106 D 2	CLARK Bullion Mountain Mining D.C. Malcolm	10/01/72	Geol, Geochem Gravity
64-00-135-18 106 D 3	NOMAD Lacanex Mining R.O. Crosby	23/02/71	Airborne Mag
64-03-135-19 106 D 3	SILVER, SPRING Canadian Reserve Oil & Gas G.J.Neilson (Spartan Aero Services)	11/02/72	Geophys

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
64-04-135-15	OTTER, SPRING, SILVER, ISA, PUNCH Spartan Aero Ltd.	05/03/73	E.M., Mag
106 D 3	R.W. Stemp		
64-02-135-47	PAN, ARPA Canex Aerial Explorations	13/10/71	Geochem
106 D 4	B. Ainsworth		
64-18-139-52	PLATA L. Patnode S. Presunka	29/06/72	Geophys
116 B 5	A.C. Ogilvy		



SELECTED BIBLIOGRAPHY

Abbott, G.

- 1971: Geology of the Williams Creek copper prospect; undergraduate thesis, University of British Columbia.

Aho, A. E.

- 1966: Exploration methods in Yukon with special reference to Anvil District; paper presented to Northern Resources Conference, Whitehorse, Y.T., March 1966; Western Miner, April 1966, pp.127-148.

Alcock, F.J.

- 1930: Zinc and lead deposits of Canada; Geol.Surv.Can., Econ. Geol. Ser. 8.

Allan, J.F. and Findlay, A.R.

- 1972: MacMillan tungsten deposit; Fourth Northern Resources Conference Proceedings, pp. 97-101.

Archer, A.R. and Main, C.A.

- 1970: A geochemical discovery of an unglaciated Arizona-type porphyry; paper presented to International Geochemical Symposium, Toronto, Ont., April, 1970.

Blusson, S.L.

- 1966: Frances Lake map-area; Geol. Surv. Can., Map 6-1966

Bostock, H.S.

- 1934: The mining industry of Yukon, 1934; Geol. Surv. Can., Mem., 178.
- 1936a: Carmacks district, Yukon; Geol. Surv. Can., Mem. 189.
- 1936b: Mining Industry of Yukon, 1935; Geol. Surv. Can., Mem. 193.
- 1937: Mining Industry of Yukon, 1936; Geol. Surv. Can., Mem. 209.
- 1938: Mining Industry of Yukon, 1937; Geol. Surv. Can., Mem. 218.
- 1941: Mining Industry of Yukon, 1939 and 1940; Geol. Surv. Can., Mem. 234.
- 1942: Ogilvie map-area; Geol. Surv. Can., Map 711A, with descriptive notes.
- 1943: Preliminary map, Upper McQuesten River, Y.T.; Geol. Surv. Can., Paper 43-9.

Bostock, H.S.

- 1944: Preliminary map, Selwyn River, Yukon;  
Geol. Surv. Can., Paper 44-34
- 1957: Yukon Territory, selected field reports of the  
Geological Survey of Canada, 1898 to 1933;  
Geol. Surv. Can., Mem. 284.

Bostock, H.S. and Lees, E.J.

- 1938: Laberge map-area, Yukon;  
Geol. Surv. Can., Mem. 217.

Boyle, R.W.

- 1956: Geology and geochemistry of silver-lead-zinc deposits  
of Keno Hill and Sourdough Hill, Yukon Territory;  
Geol. Surv. Can., Paper 55-30.
- 1957: The geology and geochemistry of the silver lead-zinc  
deposits of Galena Hill, Yukon Territory;  
Geol. Surv. Can., Paper 57-1.
- 1965: Geology, geochemistry, and origin of the lead-zinc-  
silver deposits of the Keno Hill-Galena Hill area,  
Yukon Territory; Geol. Surv. Can., Bull. 111
- 1968: The geochemistry of silver and its deposits;  
Geol. Surv. Can., Bull. 160.

Brown, C.J.

- 1961: The geology of the Flat River tungsten deposits,  
Canadian Tungsten Mining Corp. Ltd.;  
Bull. Can. Inst. Mining Met., vol. 54, pp.510-513.

Cairnes, D.D.

- 1906: Explorations in a portion of the Yukon, south of  
Whitehorse; Geol. Surv. Can., Sum. Rept. 1906,  
pp.22-30; also in Bostock (1957, pp.209-217).
- 1908: Report on a portion of Conrad and Whitehorse mining  
districts, Yukon; Geol. Surv. Can., Publ. No. 982;  
also in Bostock (1957, pp.245-275).
- 1909: Preliminary report on a portion of the Yukon Territory  
west of the Lewes River and between the latitudes of  
Whitehorse and Tantalus; Geol. Surv. Can., Sum.Rept.  
1908, pp.26-32; also in Bostock (1957, pp.276-283).
- 1910: Preliminary Memoir on the Lewes and Nordenskiold  
Rivers Coal District, Yukon; Geol. Surv.Can., Mem. 5.
- 1912: Geology of a portion of the Yukon-Alaska boundary  
between Porcupine and Yukon Rivers; Geol. Surv. Can.,  
Sum Rept. 1912, pp. 9-11.

Cairnes, D.D.

- 1915: Exploration in southwestern Yukon; Geol. Surv. Can., Sum. Rept. 1914, pp.10-43; also in Bostock (1957, pp. 354-380).
- 1916: Investigation and mapping in Yukon Territory; Geol. Surv. Can., Sum. Rept. 1915, pp. 10-49; also in Bostock (1957, pp. 381-425).
- 1917: Investigations and mapping in Yukon Territory; Geol. Surv. Can., Sum Rept. 1916, pp. 12-43.

Campbell, D.D.

- 1965: Review report on the geology and ore reserves of the Peso Silver Mines Limited properties, Y.T.; private report.
- 1966: Addendum to Campbell, 1965; private report.

Campbell, F.A.

- 1960: Nickel deposits in the Quill Creek and White River areas, Yukon; Bull.Can. Inst. Mining Met., vol 53, pp. 953-959.

Campbell, R.B.

- 1967: Geology of Glenlyon map-area, Yukon Territory (105L); Geol. Surv. Can., Mem. 352.

Cathro, R.J.

- 1969: Tungsten in Yukon; paper presented to Third Northern Resources Conference, Whitehorse, Y.T., April 1969; Western Miner, April 1969, pp. 23-40.

Chisholm, E.O.

- 1957: Geophysical exploration of a lead-zinc deposit in Yukon Territory; methods and case histories in mining geophysics; Sixth Commonwealth Mining and Metallurgical Congress, pp. 269-277.

Christian, J.D.

- 1966: The development of the Clinton Creek asbestos deposit and its effect on the Yukon; paper presented to Northern Resources Conference, Whitehorse, Y.T., 1966; Western Miner, April 1966, pp. 216-220.

Cockfield, W.E.

- 1919: Mayo area, Yukon; Geol.Surv. Can., Sum.Rept. 1919, Part B.
- 1921: Sixty Mile and Ladue Rivers area, Yukon; Geol. Surv. Can., Mem. 123.

Cockfield, W.E.

- 1922: Silver-lead deposits of Davidson Mountains, Mayo district, Yukon; Geol. Surv. Can., Sum. Rept. 1921, Part A, pp. 1A-6A; also in Bostock (1957, pp.497-498).
- 1924: Upper Beaver River Area, Mayo district, Yukon Geol. Surv. Can., Sum. Rept. 1924A.
- 1928a: Silver-lead deposits of Fifteen Mile Creek, Y.T.; Geol. Surv. Can., Sum. Rept. 1927, Part A, pp.8A-10A; also in Bostock (1957, pp. 576-578).
- 1928b: Silver-lead deposits of Rude Creek, Y.T.; Geol. Surv. Can., Sum. Rept. 1927, Part A, pp.11A-13A; also in Bostock (1957, pp.578-581).

Cockfield, W.E. and Bell, A.H.

- 1926 Whitehorse district, Yukon; Geol. Surv. Can., Mem. 150.
- 1944: Whitehorse district, Yukon; Geol. Surv. Can., Paper 44-14.

Craig, D.B. and Laporte, P.

- 1972: Mineral Industry Report 1969 and 1970, Yukon Territory and southwestern sector District of Mackenzie; Dept. Indian Affairs & Northern Development.

Dominion Bureau of Statistics

- 1957: Canadian Mineral Statistics, 1886-1956;Ref.Paper No.68.

Findlay, D.C.

- 1967: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1966; Geol. Surv. Can., Paper 67-40.
- 1969a: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1967; Geol. Surv. Can., Paper 68-68.
- 1969b: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1968; Geol. Surv. Can., Paper 64-52.

Gabrielse, H., Roddick, J.A. and Blusson, S.L.

- 1965: Flat River, Glacier Lake, and Wrigley Lake, District of Mackenzie and Yukon Territory; Geol. Surv. Can., Paper 64-52.
- 1969: Lower Cambrian Strata and Base Metals; Western Miner, February 1969, pp. 22-28.

Garrett, R.G.

- 1971: Molybdenum and Tungsten in some Acid Plutonic Rocks of Southeast Yukon; Geol.Surv. Can., Open File 51.

Geological Survey of Canada

- 1970: Report of Activities, Part A - April to October, 1969, ed. Blackadar; Geol. Surv. Can., Paper 70-1A.
- 1971: Report of Activities, Part A - April to October, 1970, ed. Blackadar; Geol. Surv. Can., Paper 71-1A.
- 1972: Report of Activities, Part A - April to October, 1971, ed. Blackadar; Geol. Surv. Can., Paper 72-1A.
- 1973: Report of Activities, Part A - April to October, 1972, ed. Blackadar; Geol. Surv. Can., Paper 73-1A.

Gleeson, C.F.

- 1965a: Heavy metal content of stream and spring waters, Dublin Gulch, Yukon Territory; Geol.Surv.Can., Map 30-1964.
- 1965b: Heavy metal content of stream and spring sediments, Dublin Gulch, Yukon Territory; Geol. Surv. Can., Map 31-1964.
- 1966a: Lead content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 45-1965.
- 1966b: Silver content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 46-1965.
- 1966c: Arsenic content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 48-1965.
- 1967a: Antimony content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 49-1965.
- 1967b: Molybdenum content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 51-1965.
- 1970: Heavy mineral studies in the Klondike area, Yukon Territory; Geol. Surv. Can., Bull. 173.

Green, L.H.

- 1965: The mineral industry of Yukon Territory and south-western District of Mackenzie, 1964; Geol. Surv. Can., Paper 65-19.
- 1966: The mineral industry of Yukon Territory and south-western District of Mackenzie, 1965; Geol. Surv. Can., Paper 66-31.



Green, L.H.

- 1971: Geology of the Mayo Lake, Scougale Creek and McQuesten Lake map-areas, Yukon Territory; Geol. Surv. Can., Mem. 357.
- 1972: Geology of Nash Creek, Larsen Creek and Dawson map areas, Yukon Territory; Geol.Surv.Can., Mem. 364.

Green, L.H. and Godwin, C.I.

- 1963: The mineral industry of Yukon Territory and south-western District of Mackenzie, 1962; Geol. Surv. Can., Paper 63-38.
- 1964: The mineral industry of Yukon Territory and south-western District of Mackenzie, 1963; Geol. Surv. Can., Paper 64-36.

Green, L.H. and McTaggart, K.C.

- 1960: Structural studies in the Mayo District, Yukon Territory; Proc. Geol. Assoc. Can., vol. 12, pp. 119-134.

Green, L.H. and Roddick, J.A.

- 1961: Geology, Nahanni, Yukon Territory and District of Mackenzie; Geol. Surv. Can., Map 14-1961.
- 1962: Dawson, Larsen Creek and Nash Creek map-areas, Yukon Territory; Geol. Surv. Can., Paper 62-7.

Green, L.H., Roddick, J.A. and Blusson, S.L.

- 1967: Geology, Nahanni, District of Mackenzie and Yukon Territory; Geol. Surv. Can., Map 8-1967.

Hilker, R.G.

- 1967: Copper mining on the Whitehorse Copper Belt, Yukon Territory; a paper presented at the 1967 Alaska Purchase Centennial Minerals Conference, College, Alaska, 1967.

Hurst, M.E.

- 1927: Arsenic-bearing deposits in Canada; Geol.Surv. Can., Econ. Geol. Ser. No. 4.

Keele, J.

- 1904: Duncan Creek mining district, Stewart River area, Yukon; Geol. Surv. Can., Ann.Rept., vol XVI, Part A. pp.18-41.

Kindle, E.D.

- 1953: Dezadeash map-area, Yukon Territory; Geol. Surv. Can., Mem. 268.
- 1964: Copper and iron resources, Whitehorse Copper Belt, Yukon Territory; Geol. Surv. Can., Paper 63-41.

Lees, E.J.

- 1936: Geology of Teslin-Quiet Lake area, Yukon Territory; Geol. Surv. Can., Mem. 203.

Little H.W.

- 1959: Tungsten deposits of Canada; Geol. Surv. Can., Econ. Geol. Ser. No. 17, p. 37.

MacLean, T.A.

- 1914: Lode mining in Yukon; an investigation of quartz deposits in the Klondike division; Can. Dept. Mines, Mines Branch, Publ. 222.

McTaggart, K.C.

- 1960: The geology of Keno and Galena Hills, Yukon Territory (105 M); Geol. Surv. Can., Bull. 58.

Muller, J.E.

- 1958: Kluane Lake map-area, Yukon Territory; Geol. Surv. Can., Paper 58-9.
- 1967: Kluane Lake map-area, Yukon Territory; Geol. Surv. Can., Mem. 340.

Mulligan, R.

- 1963: Geology of the Teslin map-area, Yukon Territory; Geol. Surv. Can., Mem. 326.

Murphy, J.D. and Sinclair, W.D.

- 1974: Exploration for lead-zinc in the Selwyn and Mackenzie Mountains, Yukon and Northwest Territories; Dept. of Indian & Northern Affairs, Paper presented at Prospectors and Developers Convention, Toronto.

Nandi, B.N., Speelman, E.L. and Montgomery, D.S.

- 1971: Study of two naturally carbonized coals; paper presented at the Seventh International Congress of Carboniferous Stratigraphy and Geology, Krefeld, West Germany, August 23-28, 1971.

Norris, D.K., Price, R.A. and Mountjoy, E.W.

- 1963: Northern Yukon Territory and northwestern District of Mackenzie; Geol. Surv. Can., Map 10-1963,

Phillips, M.P. and Godwin, C.I.

- 1970: Geology and rotary drilling at the Casino Silver Mines property; Western Miner, Nov. 1970, pp. 43-49.

Poole, W.H.

- 1965: Mount Haldane and Dublin Gulch map-areas, Geol. Surv. Can., Paper 65-1, pp. 32-35.

Poole, W.H., Roddick, J.A., and Green, L.H.

- 1960: Geology, Wolf Lake, Yukon Territory;  
Geol. Surv. Can., Map 10-1960.

Roddick, J.A.

- 1967: Tintina Trench; J. Geol., Vol.75, pp.23-33

Roddick, J.A. and Green, L.H.

- 1961a: Tay River map-area, Yukon Territory;  
Geol. Surv. Can., Map 13-1961.

- 1961b: Sheldon Lake map-area, Yukon Territory;  
Geol. Surv. Can., map 12-1961.

Schmidt, H.H.

- 1964: Standard sprinkler system strips frozen overburden;  
Eng. Mining J., Vol.165, No.7, pp.80-81.

Skinner, R.

- 1961: Mineral industry of Yukon Territory and southwestern  
District of Mackenzie, 1960;  
Geol. Surv. Can., Paper 61-23.

- 1962: Mineral industry of Yukon Territory and southwestern  
District of Mackenzie, 1961;  
Geol. Surv. Can., Paper 62-27.

Tempelman-Kluit, D.J.

- 1968: Geologic setting of the Faro, Vangorda and Swim base  
metal deposits, Yukon Territory (105K); in Report of  
Activities, pp.43-52; Geol. Surv. Can., Paper 68-1,  
Part A.

- 1969: Anvil-Vangorda District, Yukon (105K); in Report of  
Activities, April to October 1968, pp.38-39;  
Geol. Surv. Can., Paper 69-1, Part A.

- 1972: Geology and origin of the Faro, Vangorda and Swim  
concordant zinc lead deposits, Central Yukon Territory  
Geol. Surv. Can., Bull. 208.

- 1974: Reconnaissance geology of Aishihik Lake, Snag and part  
of Stewart River map-areas, West-Central Yukon;  
Geol. Surv. Can., Paper 73-41.

Wheeler, J.O.

- 1961: Whitehorse map-area, Yukon Territory;  
Geol. Surv. Can., Mem. 312.

Wheeler, J.O., Green, L.H. and Roddick, J.A.

- 1960a: Quiet Lake map-area, Yukon Territory;  
Geol. Surv. Can., Map 7-1960.

Wheeler, J.O., Green, L.H. and Roddick, J.A.

1960b: Finlayson Lake map-area, Yukon Territory;  
Geol. Surv. Can., Map 8-1960.

White, L.G.

1963: The Canada Tungsten property, Flat River area,  
Northwest Territories; Bull. Can. Inst. Mining Met.,  
Vol.56, pp.390-393.

INDEX

	Page
AC .....	93
ACME .....	102
Acroll Oil & Gas Ltd. ....	72
Adera Mining Ltd. ....	69
Aishihik Lake .....	7, 82
AL .....	68
ALBERTA .....	26
Allgold Creek .....	131
Alligator Lake .....	44
ALP .....	80
Alrae Engineering Ltd .....	77
ALTA .....	99
AM .....	93
Amax Northwest Mining Co. Ltd. ....	7, 8, 34
American Smelting & Refining Co. ....	8, 65
AMP .....	42
Anglo-American Corp. of Canada Ltd. ....	49
Anvil Arch .....	92, 101
Anvil Batholith .....	92, 94, 97, 98, 101, 103
Anvil Creek .....	95, 98, 101
Anvil Mining Corp. Ltd. ....	8, 90, 126
Anvil Project Group .....	98, 99
Anvil Range .....	8, 90, 92
Anvil Range Group .....	89
APEX .....	122
Apex Mountain .....	58
Archer, Cathro & Assco. Ltd. ....	9, 10, 61, 67
Archibald, J. and R. ....	130
Arctic Coast, Yukon .....	7
Area Exploration Corp. Ltd. ....	81
ARIES .....	36
Arjay Kirker Resources Ltd. ....	127
ARK .....	43
ARO .....	101
ARPA .....	24
ARROW .....	89
Arsenault, A. ....	104, 110
AXE .....	73
AZTEC .....	70
B .....	69
B.A. Copper Mines Ltd. ....	80
BAILEY .....	120
Ballarat Mines Ltd. ....	133
Barchan, H. ....	137
Bardusan Placers Ltd. ....	137
BAY .....	62
BEAR .....	30
Bear Creek fibre zone .....	14
Beauvette Hill .....	25
Bedrock Creek .....	135
BEN .....	67
Berg, S. ....	130
BERRY .....	122
Besner, H. ....	138
BETTY .....	134



	Page
BIR .....	84
Black Cub South .....	49
Bleiler, E.C. ....	137
Blind Creek .....	96
BLUE .....	99
Blusson, S.L. ....	7
BOBI .....	30
Bonanza Creek .....	13, 129, 130
BORDER .....	34
Bostock Range .....	19
Boswell River Resources Ltd. ....	108
BOT .....	114
Boulder Creek .....	106
Bow River Resources Ltd. ....	68
BOY .....	61
BRAM .....	96
Bremner, I.C. ....	132
Brewster Lake Mines Ltd. ....	73
BROD .....	119
BUD .....	32
Bullion Creek .....	139
Bullion Mountain Mining Ltd. ....	31
Burgelman, A. and N. ....	133
Burwash Mining Co. Ltd. ....	138
C .....	11
Cache Creek Group .....	40, 41
Cairnes Seam .....	128
Caltor Syndicate .....	57
Calumet Mine .....	28
CAN .....	72
Canadian Industrial Gas & Oil Ltd. ....	17
Canadian Occidental Petroleum Ltd. ....	43, 75, 82-85
Canadian Reserve Oil and Gas Ltd. ....	25, 26, 30, 89, 98, 99
Canalask .....	7
Canex Placer .....	8, 25, 124
Cantlie Lake .....	46
CAPA .....	92
Carmacks Coal District .....	125
Casca Project .....	105
Cassiar Asbestos Corp. Ltd. ....	14
Cathro, R.J. ....	23
CHART .....	79
Charta Mines Ltd. ....	47, 79, 115
Chatex Industries Ltd. ....	77
Chevron Standard Oil Co. Ltd. ....	10
Chief Gulch .....	130
Chieftain Hill .....	55
CHRIS .....	75
Cima Resources Ltd. ....	18, 114
Citex Mines Ltd. ....	96
CLARK .....	31
Clark Lakes .....	31
Clear Creek .....	9
Clinton Creek .....	14
Clinton Mine .....	14
Coastal Plain, YUKON .....	7

	Page
Coast Range Intrusions .....	44, 47, 49
Coffee Creek .....	70
COLT .....	99
CON .....	32
Consolidated Standard Mines Ltd. ....	69
COPPER .....	30
Coutts .....	117
CPA .....	115
Crockett, M. ....	132
Cyprus Exploration Corp. ....	8, 103
DAGO .....	32
Dago Hill .....	131
DAN .....	108
DARK .....	23
DARLENE .....	53
Davidson Range .....	30, 31
DAW .....	13
Dawson Range .....	8
Dawson Range Joint Venture .....	8, 61, 67
DEF .....	8, 66
DELTA .....	92
Delta Internation Minerals Ltd. ....	76
Dezadeash Group .....	37
Division Mountain .....	127
Dixie Adit .....	29
Djukestein, K. ....	138
Dominion Creek .....	132, 133
DON .....	122
DONNA .....	34
Dublin Gulch .....	24, 137
Duensing, D. ....	137
DUN .....	61
DUNCAN .....	25
Dusty Mac Mines Ltd. ....	121
Dwarf Birch Creek .....	85
Dyke, L.D. ....	7
Dynasty Explorations Ltd. ....	8, 19, 92, 96, 100-102
Eagle Vein .....	27
ECHO .....	92
Eckstrand, O.R. ....	7
Eighty Pup .....	131
Eldorado Creek .....	130
Elsa Mine .....	28
Eureka Creek .....	133
Faro Deposits .....	90
Faucher, E. ....	135
Fifteenmile River .....	15
Five Fingers Mine .....	125
FOLLY .....	73
Fortymile River .....	14
FOTO .....	100
Freer Creek .....	109
Fry, A.T. ....	130
Galena Hill .....	27, 28
GAP .....	70
Garret, R.G. ....	7
Gay Gulch .....	130

	Page
GB .....	77
GENE .....	72
Gergich, T. ....	9
GERRY .....	72
Glacier Creek .....	135
Glacier Creek Placers .....	135
Gold Bottom Creek .....	132
GOLDEN HORNE .....	40
GRAN .....	101
GRAND FORKS .....	130
GREEN EAGLE .....	47
Green, W.B. ....	41
Grimard, L. ....	135
GROUSE .....	52
GULL .....	34
H .....	110
Haggart Creek .....	137, 138
Hal dane Creek .....	26
HANNA .....	40
Hanson Lake .....	22
HARLOS .....	53
HAWK .....	45
HAYES .....	76
Hayes Creek .....	58, 70
HECTOR .....	28
Hess Mountains .....	8, 19
Hess River .....	19
Highet Creek .....	138
Hilker, R.G. ....	25, 79
HILL .....	73
HOHO .....	96
HO-HO .....	116
Holway, R. ....	137
Hoochekoo Creek .....	62
HORN .....	17
Howards Pass Property .....	124
HP .....	53
Hudson Bay Mining & Smelting Ltd. ....	49, 51
Hudson Bay Oil & Gas .....	62
Hudson-Yukon Mining Co. Ltd. ....	41
HUN .....	13
Hunker Creek .....	131
Hunter, J.A. ....	7
Husky Mine .....	28, 29
Idaho Hill .....	53
Idaho Hill Property .....	53
Imperial Oil Enterprises Ltd. ....	37, 38, 87
INCA .....	19
Independence Creek .....	13
International Minerals and Chemical Ltd. ....	23
International Mine Services .....	77
IRENE .....	30
Isaac Creek .....	11
Jackson Creek .....	52
JEAN .....	101
JEN .....	13
JET .....	93

	Page
JIM .....	122
JOAN .....	27
JOY .....	47
K and S Placers .....	131
Kangaroo Exploration Corp. ....	93
KAP .....	67
KART .....	57
Kathleen Lakes .....	32
KAY .....	53
KD .....	93
Keewenaw .....	49
Kennco Explorations Ltd. ....	36, 63
Keno City .....	25
Keno Hill .....	28
Keno Hill Quartzite .....	21, 26
KING .....	99
Kinnakin, M. ....	131
Kirkland Creek .....	80
KL .....	88
Klaza River .....	79
Klondike Goldfield .....	13
KLOT .....	75
Klotassin Batholith .....	67, 70
Kluane Ranges Intrusions .....	37
Kosuta, A. ....	131
Kreft, E. ....	52
Kusawa Lake .....	47
L .....	107
Laberge Group .....	53
Lacanex Mining Co. Ltd. ....	92
Lacross, J. ....	133
LAD .....	12
Ladue River .....	12
Lamontagne, J. ....	130
Lansing .....	7
LAP .....	122
Last Chance Creek .....	132
LEE .....	98
LEP .....	38
Lewes River Mines Ltd. ....	46
Lewes River Series .....	57
Lewis, C.P. ....	7
LIBRA .....	36
LIN .....	72
Little Chief .....	49
LOLA .....	107
Long Lake .....	88
LORNA .....	101
Lower Schist Division .....	21, 25, 30
LUCK .....	106, 109
LUCKY .....	30
LUGDUSH .....	70
LUNAR .....	52
Lunde, O and M. ....	132
LUX .....	108
LYN .....	103
Lynch, J. ....	135

	Page
MAC .....	61
MacDonald, B.C. ....	7
Mack's Prospect .....	80
MacMillian Pass .....	7, 8
MacMillian Tungsten .....	34
MAK .....	88
MAN .....	61
MAR .....	121
MARC .....	40
Marguerite Lake Mines Ltd. ....	36
MARK .....	98
Mark V Petroleum and Mines Ltd. ....	107
MATT .....	122
Matt Berry Mines Ltd. ....	122
MAX .....	87
MAX .....	108
MAX .....	121
McKinnon, W. ....	110
McQuesten Lake .....	30
Miben Mining Ltd. ....	131
MID .....	112
MINTO .....	65
Minto .....	8
Minto Mining Ltd. ....	58
Minto Property .....	67
Mitsubishi Metal Corp. ....	64, 88
MOD .....	108
Montana Mines Ltd. ....	73
Montana Mountain .....	54
Moose Creek .....	38
MORN .....	106
Morning Star Mines Ltd. ....	120
Mount Arkell .....	43
Mount Nansen Group .....	60, 80, 81
Mount Nansen Property .....	8, 81
MUNG .....	113
Murcury Explorations Ltd. ....	94
Mush Lake Group .....	38, 40
MX .....	93
Nadaleen .....	7
NAT .....	30
NEW .....	70
New Jersey Zinc Exploration Ltd. ....	52
Nicanex Mines Ltd. ....	42
NICH .....	45
Nichiporich, M. ....	45
NICK .....	39
Nickel Creek .....	41
Niddery Lake .....	7, 18
NITE .....	112
No Cash Mine .....	28
NOMAD .....	22
NOP .....	9
NORA .....	72
Nordenskiold Coal Area .....	127
Nordenskiold River .....	80
Northair Mines Ltd. ....	68



	Page
NRD Mining Ltd. ....	59
NUG .....	13
NUK .....	40
Occidental Minerals Corporation of Canada .....	12, 60, 70
Old Cabin Creek .....	17
Olive Crown Grant .....	25
OMO .....	108
ONI .....	83
Onion Creek .....	83
Operation Snag-Yukon .....	7
Operation Stewart .....	7
Orchay Lakes .....	102
ORI .....	59
OTTER .....	30
Overland Exploration Services .....	98
PAL .....	67
PAN .....	24
PAR .....	34
PAT .....	34
PAT .....	104
Patnode, L. ....	15, 16
PDM .....	33
PDR .....	105
PDY .....	58
Pelly .....	60
Perret, F. ....	131
Pete, C. ....	117
Phelps Dodge Corp. of Canada Ltd. ....	33, 44, 58, 105
PLATA .....	8, 15, 19
PIT .....	34
Porcupine ore body .....	14
Potato Hills .....	24
Preido Hill .....	131
PRO .....	70
Prohaszka, S. ....	135
Prospector Mountain .....	71
Provencher, C. ....	23
PUNCH .....	30
PUP .....	13
Quartz Creek .....	133
Quintana Minerals Corp. Ltd. ....	20
Quill Creek .....	41
RACA .....	55
Rackla River Mines Ltd. ....	32
RAIN .....	73
Rainbow Lake Explorations Ltd. ....	39
Rambler Hill Property .....	30
Rampton, V.N. ....	7
R and L Mining Co. ....	133
Rasmusson, W. ....	133
RAY .....	37
Rayrock Mines Ltd. ....	111, 112, 113
Red Mountain .....	128
Rhyolite Creek .....	87
Rico vein .....	27
Risco, J. ....	15
RIV .....	44

	Page
Road River Formation .....	8
ROD .....	13
ROG .....	123
Rogue River .....	17, 19
ROSS .....	72
Ross, L.M. ....	133
ROTO .....	101
ROY .....	52
RYE .....	85
SAIL .....	53
Sailor, A. and N. ....	132
SAM .....	108
Sandpete Creek .....	37
SANK .....	96
Scheelite Dome .....	23
Schmidt, Mrs. M.H. ....	133
School Vein .....	28
SCOT .....	18
Scroggie Creek .....	11
Scurry Rainbow Oil Ltd. ....	31
SEE .....	69
Selwyn Mountains .....	8, 124
SEVEN .....	106
Shamrock .....	29
SILVER .....	30
Silver City Mines Ltd. ....	15, 40
Silver City property .....	15
Silver Seven Exploration Ltd. ....	106
Silver Spring Mines Ltd. ....	25
Silver Standard Mines Ltd. ....	8, 11, 65
Sixtymile Enterprises Ltd. ....	135
Sixtymile River .....	135
SLAGGARD .....	40
Smith, C.L. ....	21
Snag .....	7
Snowshoe fibre zone .....	14
Soda Creek .....	13
Somme property .....	74
SON .....	13
SON .....	44
Sourdough Hill .....	130
South Yukon Joint Venture .....	81, 116
Spartan Explorations Ltd. ....	95
SPRING .....	30
Spruce Creek Placers .....	138
SQUAW .....	70
STAR .....	71
Starbird Mines Ltd. ....	71
Stewart River .....	7
Stutter, M. ....	131
SUL .....	13
Sumitomo Metal Mining Co. ....	41
Summit Lake .....	8
SUSAN .....	106
Swim Lakes .....	8, 92
Syenite Range .....	20
TAD .....	77
TAF .....	93

	Page
Tagish Lake .....	54
Takacs, S. ....	52
Talbot Creek .....	84
Tantalus Butte Mine .....	126
Tanya .....	117
Taseko Mines Ltd. ....	63
TASLAR .....	63
Tatamagouche Creek .....	42, 138
Taylor, F. ....	137
Tay River .....	89
TED .....	20
Tempelman-Kluit, D.J. ....	7
Teslin Explorations Ltd. ....	125
THATCH .....	82
Thorsen, H. ....	139
Thunder Gulch .....	137
Tick Vein .....	28
TIDE .....	108
TIGER .....	30
TIM .....	93
TIN .....	72
Tin Can Vein .....	27
TIP .....	72
TK .....	64
TLINGITS .....	70
TODY .....	61
TOM .....	13
TOM .....	72, 74
TOP .....	63
TOP .....	96
Tough, T.R. ....	53
Townsite adit .....	29
Trans Columbia Exploration Ltd. ....	70
TRI .....	63
TRY .....	95
TUNG .....	111
Turner, C. ....	117
TUV .....	56
TYR .....	83
United Keno Exploration .....	8
United Keno Hill Mines Ltd. ....	9, 27, 28, 56, 66
Upper Duncan Creek .....	137
Upper Schist .....	26
VAGAS .....	118
Vancouver Creek .....	10
Vangorda Creek Fault .....	103
Venus Mines Ltd. ....	54
Verslucce, P. ....	104, 110
VIC .....	46
Victoria Gulch .....	131
Wade Creek .....	42
WAIN .....	68
Wainoco Oil Limited .....	68
WAR .....	61
War Eagle .....	49, 51
Warnsby, B. ....	131
WAT .....	44

	Page
Watson River .....	44
WE .....	51
Welland Consolidated Mining Ltd. ....	118
Wellgreen Mine .....	7, 41
WET .....	58
Wheaton River .....	55
Whitehorse Copper Belt .....	48, 50
Whitehorse Copper Mines Ltd. ....	48
Whitehorse Silver Mines Ltd. ....	53
White Mountain Massif .....	7
White River .....	39
White River property .....	40
WILL .....	61
Williams Creek .....	8
Williams Creek property .....	61
Wolfhard, M.R. ....	21
Wolf Lake Joint Venture .....	111, 112, 113
Wolverine Creek .....	68
Wolverine Hill .....	14
WRANGELL .....	36
Wye Lake Resources Ltd. ....	119
Yaremicio, W. ....	135
YUKON .....	26
Yukon Consolidated Gold Corporation .....	133
ZAN .....	93
ZORO .....	61















Indian and  
Northern Affairs

Affaires Indiennes  
et du Nord

North of 60

Mineral Industry Report  
1973  
Yukon Territory  
EGS 1975-7

W. D. Sinclair  
G. W. Gilbert

CA1  
1A60  
-M33







Canada

Government  
Publications

Dept. of Indian Affairs & Northern Development

MINERAL INDUSTRY REPORT

1973

Yukon Territory

by

W.D. Sinclair  
G.W. Gilbert

Crown Copyrights reserved

Available by mail from

Information Canada, Ottawa, K1A 0S9

and at the following

Information Canada bookshops:

Halifax  
1683 Barrington Street

Montreal  
640 St. Catherine Street West

Ottawa  
171 Slater Street

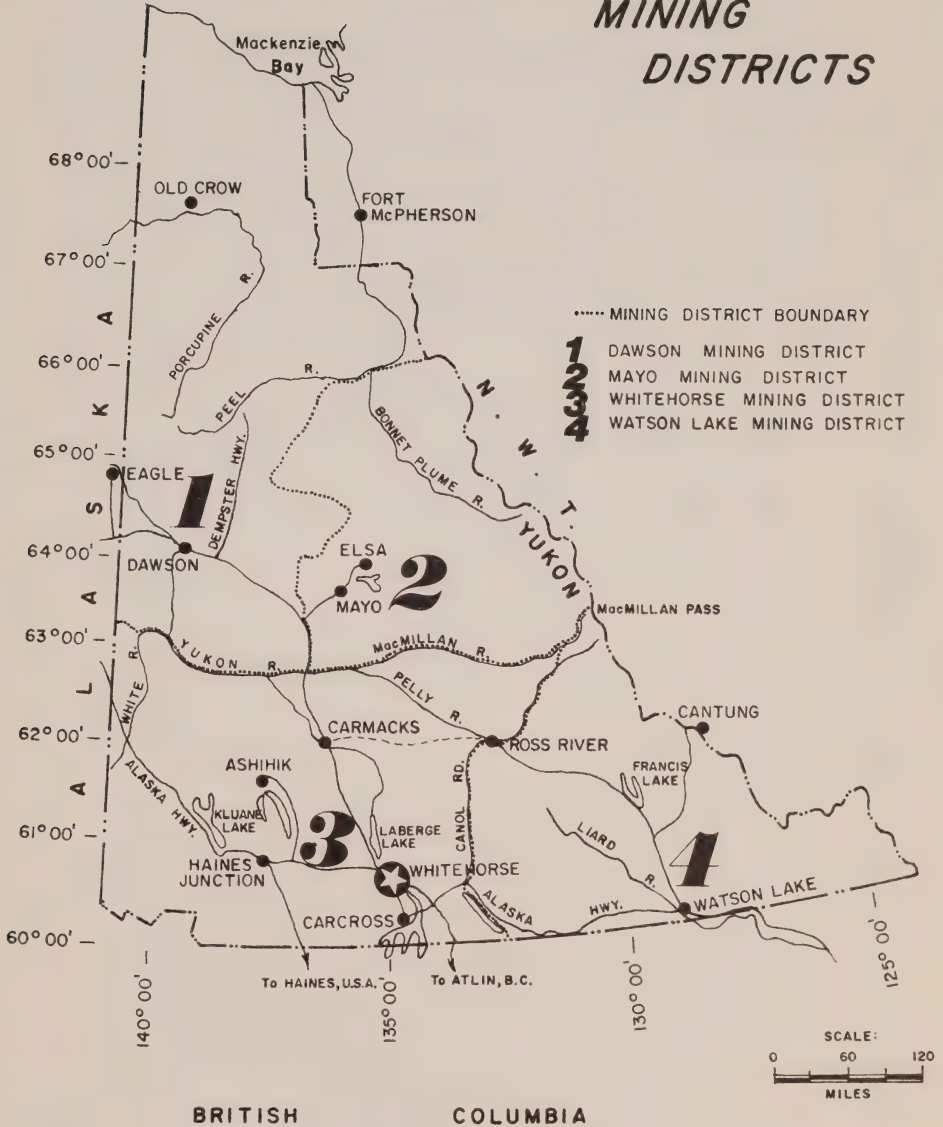
Toronto  
221 Yonge Street

Winnipeg  
393 Portage Avenue

Vancouver  
800 Granville Street  
or through your bookseller  
Price \$3.00 Catalogue No.: R71-9/1973-1  
Price subject to change without notice  
Information Canada  
Ottawa, 1975  
IAND Publication No.: QS-8023-000-EE-A1



# YUKON TERRITORY MINING DISTRICTS



### ACKNOWLEDGEMENT

We wish to thank L. Green, D.S. McDiarmid  
and T.W. Caine for their assistance in  
editing this report.



# CONTENTS

	Page
Introduction.....	1
Transportation facilities.....	1
Mineral production of Yukon.....	3
Lode exploration in Yukon.....	5
Activities of the Geological Survey of Canada.....	7
Lode mining and exploration.....	9
Mayo Mining District.....	9
Galena and Keno Hills area.....	9
Davidson Range area.....	14
Hess Mountains area.....	17
Macmillan Pass area.....	19
Bonnet Plume River area.....	23
Dawson Mining District.....	29
Fortymile area.....	29
Sixtymile area.....	32
Ogilvie Mountains area.....	33
McQuesten River area.....	34
Whitehorse Mining District.....	35
Dawson Range area.....	35
Anvil Range area.....	50
Upper White River area.....	60
Kluane area.....	64
Ruby Range area.....	67
Nisling Range.....	68
Dezadeash area.....	72
Whitehorse area.....	74
Wheaton River area.....	77
Lake Laberge-Teslin River area.....	78
Big Salmon Range area.....	79
Watson Lake Mining District.....	80
Cassiar Mountains area.....	80
Frances Lake area.....	81
Liard Plateau.....	82
Pelly Mountains area.....	84
Pelly Plateau area.....	88
Selwyn Mountains area.....	89
Coal Mining and exploration.....	120
Whitehorse mining District.....	120
Placer mining.....	127
Klondike area.....	127
Mayo-McQuesten area.....	137
Kluane area.....	143
Firth River area.....	146
Fortymile-Sixtymile-Iadue area.....	147
Livingstone area.....	149
Fineness of Yukon placer gold.....	150
Reports accepted for assessment credit - 1973.....	153
Reports accepted under N.M.E.A. - 1973.....	161
Selected bibliography.....	162
Index.....	168

		Page
Table	I Transportation costs.....	2
	II Mineral production of Yukon Territory.....	4
	III Mineral claims recorded, Yukon Territory.....	5
Figures		
	Yukon Territory placer activity 1973.....	123
	Klondike area placer locations 1973.....	125
	Mayo-McQuesten area placer activity 1973.....	135
	Kluane area placer locations 1973.....	141

## INTRODUCTION

This report is a review of the Yukon mineral industry for 1973. Earlier records of mineral industry activities are presented in the Annual and Summary Reports of the Geological Survey of Canada (1898 to 1933), Memoirs of the Geological Survey of Canada (1935 to 1940), Papers of the Geological Survey of Canada (1960 to 1968) and a Mineral Industry Report by the Department of Indian Affairs and Northern Development (1969 and 1970). The information in this report was obtained from visits to mineral properties and by personal communication with individuals involved as well as from technical reports, trade journals, newspapers, publications of the Geological Survey of Canada and the monthly reports of the Mining Recorders of the Dawson, Mayo, Watson Lake and Whitehorse Mining Districts. The co-operation and assistance of companies and individuals of the mineral industry and members of government agencies is gratefully acknowledged.

## TRANSPORTATION FACILITIES

Whitehorse, with a population of roughly 12,000 in 1973, is the capital and main distribution centre in the Yukon. It is serviced by ship and rail via Skagway and by truck, bus and air from Edmonton and Vancouver. Surface transportation routes connect to Dawson, Carmacks, Faro, Ross River, Watson Lake, Haines Junction and Alaska as well as points between and regular bus and freight service are available. Minor roads connect with many mining properties, ranches and timber leases. Boats or barges are also used on occasion to transport heavy equipment and fuel on the Yukon River. Fixed wing and helicopter aircraft are available for charter at Whitehorse, Watson Lake and Ross River throughout the year and at numerous other designated points during the summer months. Representative costs for transportation in the Yukon are given in Table 1.

TABLE 1

Transportation Costs

RAIL AND BOAT

Ore and concentrates, Whitehorse to North Vancouver  
Rate on 30,000 lb. carloads

Lead, zinc, copper con's.....\$16.00/ton  
Asbestos fibre.....\$17.00/ton

Mining equipment and related supplies - North Vancouver to  
Whitehorse (dollars/100 lb.)

Pounds	<u>10,000</u>	<u>24,000</u>	<u>36,000</u>
Machinery	3.75	3.00	2.90
Packaged Petroleum products	3.60	3.20	3.15
Drilling mud, plywood	3.60	3.00	2.90

Backhaul rate up to 12 months is 60 per cent

TRUCK

Basic rates - Whitehorse from Edmonton and Vancouver  
(dollars/100 lb.)

Pounds	<u>100</u>	<u>1,000</u>	<u>5,000</u>	<u>10,000</u>
From Edmonton	12.00	7.90	6.50	5.64
From Vancouver	18.25	10.30	7.76	6.65

BUS

Express rates - Whitehorse

Pounds	<u>1-2</u>	<u>2-10</u>	<u>40-50</u>	<u>90-100</u>
From Edmonton	3.65	3.65	8.95	15.85
From Vancouver	3.40	3.65	9.95	18.00

AIR (Edmonton-daily, Vancouver-twice daily)

Air express and air freight - Whitehorse

<u>Air express</u>	<u>Minimum 11 lb.</u>	<u>20 lb.</u>	<u>100 lb.</u>
From Edmonton	\$8.00	\$11.25	\$38.75
	<u>Minimum 9 lb.</u>		
From Vancouver	\$8.00	\$12.15	\$43.50

Table 1 (cont'd)

<u>Air freight</u>	<u>Min. 50 lb.</u>	<u>50-100</u>	<u>over 100 lb.</u>
From Edmonton	\$11.50	\$.22/lb.	\$.21/lb.
	<u>Min. 25 lb.</u>		
From Vancouver	\$6.00	\$.22/lb.	\$.20/lb.

CHARTER AIRCRAFT

Type	Rate per hour	Rate per mile
Fixed wing		
Cessna 172	\$65.00	\$0.55
185	96.50	0.75
Beaver	105.00	1.00
Otter (Single)	145.00	1.35
Otter (Twin)	265.00	1.60
Aztec	150.00	0.80
Helicopter (Fuel supplied by charterer)		
Bell 47G-2	132.00	
Bell 47 G-3B-1	165.00	
Bell 206A	240.00	
Sikorsky S55T	340.00	
Hiller 12-E	160.00	

MINERAL PRODUCTION OF YUKON

The current and cumulative values of Yukon mineral production are given in Table 11. In 1973, the total mineral production was valued at \$145.8 million, an increase of \$39.1 million from 1972. Anvil Mines (\$112.9 million) was the major producer in the Yukon, followed by Clinton Creek (\$14.8 million), Whitehorse Copper Mines (\$14.4 million) and United Keno Hill Mines (\$11.6 million). The increase in total production is a reflection of increased production at Anvil Mines and the start-up of underground operations at Whitehorse Copper Mines.



TABLE 11  
Mineral Production of Yukon Territory

Product	1971	1972	1973 <sup>1</sup>	Cumulative Totals <sup>1</sup> 1886 to 1973
<u>Gold</u>				
fine oz.	14,473	4,079	4,000	
\$	511,534	234,983	386,000	268,904,353
<u>Silver</u>				
fine oz.	5,747,703	4,988,967	6,156,000	
\$	8,966,417	8,331,575	15,391,000	178,771,234
<u>Lead</u>				
lb.	217,336,142	222,921,742	227,499,000	
\$	29,340,379	34,392,366	36,718,000	181,833,943
<u>Zinc</u>				
lb.	233,134,144	237,225,560	252,654,000	
\$	39,003,342	45,241,287	60,536,000	209,146,854
<u>Cadmium</u>				
lb.	59,100	32,711	15,000	
\$	114,654	82,759	55,000	6,353,517
<u>Copper</u>				
lb.	5,132,000	1,748,093	21,587,000	
\$	2,709,696	890,286	13,771,000	45,774,319
<u>Nickel</u>				
lb.		2,814,621	2,541,000	
\$		3,996,762	3,888,000	7,884,762
<u>Platinum</u>				
fine oz.		3,625		
\$		325,573		341,126
<u>Asbestos</u>				
tons	91,969	101,888	99,000	
\$	12,374,380	13,006,476	14,849,000	75,172,530

Table 11 (Cont'd)

Coal				
tons	21,026 <sup>2</sup>	18,435 <sup>2</sup>	19,915 <sup>2</sup>	
\$	210,250 <sup>2</sup>	184,350 <sup>2</sup>	199,150 <sup>2</sup>	3,378,072

Totals	\$ 93,230,662	106,686,417	145,793,150	980,112,289
--------	---------------	-------------	-------------	-------------

<sup>1</sup>Preliminary figures

<sup>2</sup>At approximate value of \$10/ton

# LODE EXPLORATION IN YUKON

Mineral exploration activity by major mining companies as well as junior companies and individuals increased significantly in 1973 from 1972. This increase was due to a number of factors including favourable metal prices and a significant lead-zinc discovery in the Summit Lake area late in 1972. The increase in exploration activity is reflected in the total number of claims staked (Table 111) which shows an increase from 6,845 in 1972 to 9,383 in 1973.

The discovery of lead-zinc mineralization by Canex Placer Limited in the Summit Lake area of the Watson Lake Mining District led to a major staking rush in the fall and winter of 1972-73. In the summer of 1973 Canex Placer Limited carried out roughly 15,000 feet of diamond drilling on their Howard's Pass property in the Summit Lake area and numerous companies conducted geological and geochemical surveys on other properties in the area. In addition, several companies carried out regional programs in the area.

The Hoo Joint Venture carried out bulldozer trenching and 2,500 feet of diamond drilling on the HOO property 50 miles southeast of Ross River.

TABLE 111

## Mineral Claims Recorded, Yukon Territory

Mining District	1969	1970	1971	1972	1973
Dawson	846	848	1,054	669	1,168
Mayo	1,466	768	1,026	1,784	2,587
Watson Lake	996	1,294	1,245	2,470	2,509
Whitehorse	12,927	8,609	4,380	1,922	3,119
Totals	16,235	11,519	7,705	6,845	9,383

A major copper discovery was made by United Keno Explorations on the DEF property, 12 miles west of Minto in the Whitehorse Mining District. The deposit, which occurs in flat-lying foliated zones in Triassic granodiorite, was found to extend south onto the MINTO property, jointly owned by Silver Standard Mines and Asarco. In 1973 both United Keno and Silver Standard-Asarco carried out over 25,000 feet of drilling on each of their properties and outlined a minimum of six million tons of material grading two per cent copper.

Casino Silver Mines Limited carried out over 4,000 feet of drilling on their copper-molybdenum property at the heads of Casino and Canadian Creeks.

There was active exploration in the Faro area with various programs including geophysical, geochemical and geological surveys as well as some diamond drilling being carried out by Dynasty Explorations Limited, Kerr Addison Mines Limited and Ridgemont Mining Corporation, a subsidiary of Cyprus Mines Limited.

The Wellgreen Mine west of Burwash Flats was shut down in August due to lack of continuity in the ore body and bad ground conditions. The mine had been operating for roughly a year and a half.

Silver City Mines Limited continued work on their copper property on the White River but were hampered by equipment problems, driving slightly over 400 feet on an adit at the 2,800 foot level when work was curtailed due to freeze-up.

In the Mayo Mining District, a major staking rush was sparked by the discovery of high grade zinc showings in Precambrian to Cambrian carbonates in the Bonnet Plume River area by Barrier Reef Resources Limited. In 1973, Barrier carried out some trenching and surface sampling of the showings. The staking rush, which began in earnest in August, continued into the spring of 1974 and resulted in the recording of over 4,000 claims.

In the Hess Mountains, the PLATA lead-silver-zinc property belonging to Dynasty Explorations Limited was explored by 1,300 feet of diamond drilling and 34,500 feet of bulldozer trenching.

In February, 1973, the Amax Northwest Mining Company Limited announced that 30 million tons of 0.9 per cent  $WO_3$  had been outlined by drilling in 1972 and previous years at their tungsten property in the MacMillan Pass area. Work in 1973 consisted of driving an adit and several crosscuts at the 6,200 foot level and carrying out over 5,000 feet of underground drilling. In addition, several bulk samples were sent out for metallurgical, crushing and grinding tests.

Also in the MacMillan Pass area, Spartan Explorations Limited announced a discovery of barite. Hand trenching indicated two zones of barite of drilling mud grade.

Scurry-Rainbow Oil Limited carried out 1,500 feet of drifting from an adit at the 3,300 foot level and a program of underground drilling on the CLARK silver-lead-zinc property near Clark Lakes.

In the Rambler Hill area, Canadian Reserve Oil and Gas Limited and Silver Spring Mines Limited conducted geochemical surveys, bulldozer trenching and 681 feet of diamond drilling on their silver-lead-zinc properties.

ACTIVITIES OF THE GEOLOGICAL SURVEY OF CANADA  
IN YUKON DURING 1973

During 1973, one reconnaissance mapping program and numerous special studies were undertaken by officers of the Geological Survey of Canada (Geol. Survey Canada, Paper 74-1, parts A and B).

Reconnaissance mapping with helicopter support in the Saint Elias Mountains was undertaken by R.B. Campbell and G.H. Eisbacher. A major straight segment of the Denali Fault System, for which the name Dalton Fault was proposed, was traced from the south end of Kluane Lake to the Kellsall River valley. The fault had previously been interpreted as an unconformity.

In the Pelly Mountains, D. Tempelman-Kluit, G. Abbott and B. Read carried out a study of Lower Paleozoic rocks. Particular attention was paid to the Cambro-Ordovician phyllite which was found to have some similarities to phyllite in the Anvil District and which should therefore be favourable for exploration for massive sulphide ore bodies similar to those in the Anvil District. The overlying Siluro-Devonian succession exhibited a general similarity to the Lower Paleozoic succession in the Selwyn Basin including carbonate-shale facies boundaries favourable for lead-zinc deposits.

R.V. Kirkham visited the Minto copper deposit as part of his continuing study on copper deposits in Canada. He concluded that the mineralization was pre-metamorphic in origin although the significant gold content and potassic (biotitic) nature of the host rocks make it unlikely that they are metasedimentary deposits.

J.G. Souther made a brief reconnaissance of Tertiary volcanic rocks in the Saint Elias Mountains as part of his Cordilleran Volcanic Project. Tertiary volcanics were found to consist of volcanic flows and pyroclastics having a composite thickness of 4,000 feet. The volcanics have been tentatively assigned to the alkali-olivine basalt, trachy-basalt, trachyte, sodic rhyolite succession.

W.H. Fritz measured a number of sections in Cambrian rocks in Northern Yukon in conjunction with Operation Porcupine. A number of unconformities were recognized and carbonate-shale facies relationships were traced through Cambrian time.

L.D. Dyke examined the Barn Uplift in the Barn Mountains, Northern Yukon Territory. The Barn Uplift exhibits great structural relief in a relatively small area. The likelihood of associated structural closure and updip truncation of strata make Barn and similar areas of uplift prime targets for hydrocarbon exploration.

W.S. Hopkins, Jr. and D.K. Norris made a study of unconsolidated Paleogene sediments in the Old Crow Structural Depression, Northern Yukon Territory. From the microfloral assemblage they postulated a temperate to warm-temperate climate during the Paleogene.

R.W. Macqueen examined Lower and Middle Paleozoic rocks in Northern Yukon in conjunction with Operation Porcupine. A number of sections mainly in Wernecke and western Mackenzie Mountains were measured and described. These consisted of approximately 3,500 feet of platform carbonates.

D.K. Norris obtained additional structural, stratigraphic and paleontological data in the Northern Canadian Cordillera necessary for the preparation of 1:250,000 scale geological maps.

J.A. Jeletzky undertook a stratigraphic-paleontological study of Jurassic and Cretaceous rocks of the Northern Yukon and District of Mackenzie.

F.G. Young studied Cretaceous stratigraphic displacements across the Blow Fault Zone, Northern Yukon Territory. He concluded from stratigraphic contrasts that large displacements occurred in Early Cretaceous time.



LODE MINING AND EXPLORATION

MAYO MINING DISTRICT

Galena and Keno Hills Area

(1) UNITED KENO HILLS MINES LIMITED	Silver, Lead, Zinc,
Commerce Court West	Cadmium
Toronto, Ontario	105 M 13, 14
M5L 1B4	(63°55'N, 135°29'W)

References: Boyle (1956; 1964; 1965; 1968); Green and McTaggart (1960); Green (1966, pp. 10-17); Gleeson (1966; 1967); Findlay (1967, pp. 18-21; 1969a, pp. 20-24; 1969b, pp. 10-12); Tempelman-Kluit (1970); Craig and Laporte (1972, pp. 11-13).

Claims: 894 patented and unpatented claims and leases in the Mayo district.

Location and Access:

The properties are all on Keno Hill and Galena Hill and are accessible by an all-weather road from Mayo, 32 miles to the south. Ore concentrates are trucked to Mayo and then to Whitehorse, a distance of 277 miles. From Whitehorse, the concentrates are shipped by the White Pass and Yukon Railway 110 miles to the port of Skagway.

History:

The Keno-Galena Hills district is the second most important silver-producing area in Canada and has the longest production history of any lode mining area in the Yukon. The area was first prospected in 1887, and placer gold reported to exist in bars and tributaries of the Stewart River led to a large influx of prospectors in 1898, resulting in the discovery of a number of placer gold deposits. Attention was soon drawn to lode gold deposits in the area and subsequently to the lead-silver veins.

The initial discovery of the silver-lead veins was made in 1906 by H.W. McWhorter on Galena Creek, site of the present Silver King veins and from 1913-1919 a small tonnage of high grade silver-lead ore was mined and shipped.

Discovery of the No. 9 vein system on Keno Hill by Louis Beauvette in July, 1919, sparked a stampede to the area, resulting in the staking of over 500 claims and the discovery of a number of important mineral prospects. Beauvette's claims were subsequently acquired by the Yukon Gold Company which in 1920 formed the subsidiary company, Keno Hill Limited to mine them.

In 1921, the Treadwell Yukon Company Limited, began mining on the Ladue claim and gradually acquired many of the

better showings in the area. From 1921 to 1941, Treadwell Yukon produced from the Sadie-Friendship, Lucky Queen, Silver King, Calumet, Elsa and Ladue mines for a total of 44 million ounces of silver and 96 million pounds of lead from 625,000 tons of ore.

Inoperative from 1942 to 1946, the Treadwell Yukon Company Limited was succeeded in 1946 by Keno Hill Mines Limited, reorganized in 1948 as United Keno Hill Mines Limited. Since 1962 the controlling interest in the company has been held by Falconbridge Nickel Mines Limited. From 1947 to 1973, the total production has been 119,991,605 ounces of silver, 425,793,139 pounds of lead, 327,587,223 pounds of zinc and 4,150,424 pounds of cadmium from 3,365,949 tons of ore milled (United Keno Hill Mines Limited, Annual Report, 1973).

#### Description:

The Keno-Galena Hills area is underlain by graphitic and sericitic schists, phyllite and quartzite which have been divided into a lower schist, a central quartzite and an upper schist (Units 1, 2 and 3, Boyle, 1964). Formerly considered part of the Precambrian Yukon Group of metasediments, the lower schist and central quartzite are now thought to be Jurassic and Lower Cretaceous respectively, with the age of the upper schist uncertain (Tempelman-Kluit, 1970). Metadiorite and metagabbro, locally referred to as "greenstone", occur as conformable lenses and sills in the lower schist and central quartzite. Granitic stocks of Cretaceous age outcrop northwest and southwest of the Keno-Galena Hills area and quartz-feldspar sills are present locally.

The metasedimentary rocks form the southern limb of a large open anticline and dip southeast. They are cut by two systems of faults, one striking northeast and one northwest.

The ore deposits are siderite-galena-sphalerite-freibergite-pyrite-chalcopyrite lodes in northwest-trending vein faults and appear to be best developed in erratic, structurally-related dilatant zones in thick-bedded quartzites and greenstones.

#### Current Work:

During 1973, production came from 5 mines in the area. The greatest production came from the Husky Mine, which produced 44,583 tons of ore averaging 52.25 ounces of silver per ton, 5.53 per cent lead and 0.85 per cent zinc. Development work at this mine consisted of 1,919 feet of lateral development on the 250 foot level and cross-cutting on the 375 foot level in preparation for underground drilling. The No Cash Mine produced 23,439 tons of ore grading from 28.55 ounces of silver per ton, 3.11 per cent lead and 1.87 per cent zinc. Lateral development including cross-cuts, totalled 1,333 feet of which 160 feet was in ore. Production from the Elsa Mine was 12,972 tons with an average grade of 28.46

ounces of silver per ton, 3.33 per cent lead and 1.47 per cent zinc. Underground development at the Elsa, confined to 321 feet of sub-drifting in the 17 vein, failed to disclose any ore. From the Dixie Adit, 7,671 tons were produced averaging 19.71 ounces of silver per ton, 4.17 per cent lead and 7.52 per cent zinc. Underground development totalled 680 feet and failed to develop ore. The Townsite Adit produced 5,914 tons of ore containing 11.82 ounces of silver per ton, 3.26 per cent lead and 1.02 per cent zinc. Underground drifting totalling 1,048 feet encountered 40 feet of ore. Higher silver prices in 1973 prompted a re-evaluation of the company's reserves. At year end minor exploration was underway at the Shamrock and Keno properties.

Surface exploration in 1973 included 141,180 feet of rotary percussion drilling, most of which was on targets on Galena Hill. Results were reported as negative. Preliminary drilling was carried out on the Lake, Shamrock and Lucky Queen grids on Keno Hill and more detailed drilling is scheduled for 1974.

The following summary of operating results for 1971, 1972 and 1973 is taken from information provided by the Company:

	1973	1972	1971
Dry tons milled	94,819	80,646	94,754
Daily average (tons)	259.8	220.3	259.6
Mill Heads			
Silver (oz/ton)	34.99	32.54	31.80
Lead (%)	4.04	3.96	4.47
Zinc (%)	0.92	2.66	3.83
Metal Production			
Silver (oz)	3,134,828	2,503,921	2,919,693
Lead (lb)	7,262,400	6,108,042	8,220,513
Zinc (lb)	1,345,062	3,307,178	6,533,208
Cadmium (lb)	17,944	46,736	84,432
Metal Sales	\$11,614,473	\$6,120,944	\$6,714,042
Ore Reserves (tons)	84,500	65,200	142,260
Silver (oz/ton)	47.4	56.8	51.6
Lead (%)	5.8	6.4	5.3
Zinc (%)	1.5	1.5	2.4

(2)FORMO	Silver, Lead, Zinc
Rio Plata Silver Mines Limited	105 M 14
420 - 475 Howe Street	(63°56'N, 135°22'W)
Vancouver, British Columbia	

References: Green and Godwin (1963, p. 10); Boyle (1965, pp. 67-68).

Claims: PAPOOSE, TYEE, PREMIER, SPRUCE, CHEECHAKO, ROCKET, TILlicum, DOROTHY, TAGISH, SKOOKUM, BIRCH, SOMETHING (Fr.), WIMPY (Fr.).

Location and Access:

The FORMO group of claims is situated on the north slope of Galena Hill beside the Elsa-Keno road. The southern part of the property is also crossed by the Calumet road.

History:

The FORMO group was formerly owned by Yukeno Mines Limited, who leased the property to A.A. Smith of Mayo, Yukon Territory, in 1961. In the winter of 1961-62 Smith mined 14.8 tons of hand cobbled ore that assayed 144.6 ounces per ton silver, 57.0 per cent lead and 10.3 per cent zinc (Green, 1963, p.10). Late in 1962, the FORMO property was acquired by Rio Plata Silver Mines Limited.

Description:

The property is underlain by graphitic, quartz-sericite schists of the Lower Schist Formation (Unit 1a, Boyle, 1965, Figure 2) that have been intruded by sill-like bodies of metadiorite and metagabbro locally referred to as greenstone (Unit 7, op. cit). The principal showing on the FORMO group is in a fault zone trending 030° and dipping 50° east. The fault is mainly within quartz-sericite schist except near the original FORMO shaft where schist east of the fault is in contact with greenstone west of the fault. When visited by Green and Godwin (1963, p. 10) a lens of massive galena 12 to 16 inches wide was exposed in trenches in the schist.

Current Work and Results:

Work on the FORMO property in 1973 included a ground magnetic survey, soil sampling and roughly 1,800 feet of trenching. Further soil sampling and geological mapping are planned for 1974.

In 1973 the company also carried out some line-cutting and soil sampling on the AZTEC, HACIENDA and CAPRICORN properties on Galena Hill.



Lynx Creek

(3) JAY	Lead, Zinc, Silver,
Belmoral Mines Limited	Gold
107 - 325 Howe Street	106 D 4
Vancouver 1, British Columbia	(64°00'N, 135°38'W)

References: Gleeson et al (1965, Maps 30-1964 and 31-1964); Green (1966, pp. 16-17); Craig and Laporte (1972, pp. 15-16).

Claims: JAY 1-16

Location and Access:

The property is situated 30 miles northeast of Mayo on the south side of Lynx Creek. Access in 1973 was by helicopter from Mayo.

History:

The claims were originally staked as the G group by United Keno Hill Mines Limited who carried out soil sampling and trenching on silver-lead-antimony veins in 1965 and 1966. The claims were subsequently allowed to lapse and were restaked as the JAY claims in 1969 by Altair Mining Corporation Limited. This company carried out a soil sampling survey in 1969 and subsequently optioned the property to Belmoral Mines Limited.

Description:

The claims are underlain by Precambrian and/or Cambrian thin banded, gritty quartzite, limestone and biotite schist (Unit 3, Green, 1972) which is thrust over Lower Cretaceous Keno Hill quartzite (Unit 18, Green, 1972) along the southeastern and eastern boundary of the property. Siderite and associated galena occur in a northwest-striking vein up to 35 feet wide and dipping 20° to 30° east.

Current Work and Results:

Detailed geological mapping conducted in 1973 outlined a siderite-galena vein up to 35 feet wide trending northwest and dipping 25° to 30° east. The vein material consists of coarse crystalline, strongly oxidized siderite with narrow stringers and veinlets of galena. Samples taken from trenches on the vein assayed 0.003 to 0.02 ounces per ton gold, 0.07 to 36.3 ounces per ton silver, 0.01 to 15.7 per cent lead and 0.20 to 12.95 per cent zinc. Recommendations for further work included soil sampling, trenching and possibly diamond drilling.



DAVIDSON RANGE AREA

Rambler Hill

(4) RAMBLER HILL PROPERTY                      Silver, Lead, Zinc  
Canadian Reserve Oil and Gas Limited (60%)      106 D 3  
1600 - 639 - 5th Avenue S.W.                      (64°05'N, 135°14'W)  
Calgary, Alberta  
and  
Silver Spring Mines Limited (40%)  
204 - 2061 Beach Avenue  
Vancouver 5, British Columbia

References: Cockfield (1919, pp. 6-7; 1922, pp. 4-5);  
Green (1971, p. 63; 1972, p. 131).

Claims: IRENE 1-6, DOG 7-16, 20-24, 33-53, NAT 1-16,  
COPPER 1-6, ZAP 1-32, PAUL 1-8, TIGER 1-14, BOB  
1-6, JAN 1-8, GOLD 1-8, VERN 1, 2, DEN 1-8;  
a total of 158

Location and Access:

The claims are situated on Rambler Hill and the surrounding area in the Davidson Range and lie approximately 38 miles north-northeast of Mayo. The claims can be reached by a 5-Mile tote road which leaves the McQuesten Lake Road at a point 12.2 miles from the Mayo-Keno City Road.

History:

The earliest reports of work on the property are from Cockfield (1919) who visited the area in 1918. At that time development consisted of a 50 foot shaft and a 10 foot crosscut on a vein, measuring 12 feet across but containing areas of waste. When visited again by Cockfield in 1921 (Cockfield 1922) the shaft was reported to be 80 feet deep, with a 12 foot crosscut. In addition, the vein had been traced down hill by a number of trenches and an adit had been started about 300 feet below the shaft. Since then this showing has been staked many times but little work has been done with the exception of some bulldozer stripping carried out in 1961. Since 1971, most of the claims in the Rambler Hill area have been acquired by Canadian Reserve Oil and Gas and Silver Spring Mines.

In 1972, the vein described by Cockfield and currently covered by the IRENE claims was explored by at least 12 drill holes totalling over 2,000 feet. One of these holes was reported to have intersected 20 feet of heavily limonitized material containing sphalerite, galena, minor chalcopyrite and siderite. On the west side of Rambler Hill, on the NAT claims, ground mag and E.M. surveys were carried out and a series of bulldozer trenches put in across a quartz vein up to 8 feet wide containing disseminated galena and sphalerite.

### Description:

The claims are underlain primarily by graphitic phyllite, thin-bedded phyllitic quartzites and phyllite (Unit 7, Green, 1971) which are considered to be Jurassic in age, intruded by sills and lens-shaped bodies of metadiorite and metagabbro locally referred to as "greenstone" (Unit 9, Green, 1971).

Mineral showings occur in roughly north-trending veins dipping to the east in phyllitic host rocks and consist mainly of limonite with siderite, galena, sphalerite and some chalcopyrite. A selected sample of this material assayed 0.01 ounces per ton gold, 49.53 ounces per ton silver, 80.0 per cent lead, 0.10 per cent zinc and 0.40 per cent copper (Green, 1971).

### Current Work and Results:

In 1973, three diamond drill holes totalling 681 feet were drilled on NAT and COPPER group claims to test the showings exposed in the trenches on the NAT claims. A soil geochemistry survey was carried out on the DOG claims and apparently outlined an anomalous area which was subjected to more detailed examination by bulldozer stripping. Approximately 200 feet of bulldozer trenching was also carried out on the NAT, TIGER, COPPER and DOG groups.

### Clark Lakes

(5) CLARK	Lead, Zinc, Silver
Scurry-Rainbow Oil Limited	106 D 2
709 - 8th Avenue South West	(64°08'N, 134°57'W)
Calgary, Alberta	
T2P 1H5	

References: Green (1971); Craig and Laporte (1972, pp.19-20)

Claims: CLARK 1-86

### Location and Access:

The claims are situated south of Clark Lakes approximately 18 miles northeast of Keno. The Wind River Trail, a winter tote road, passes one mile north of the property. Access in 1973 was by fixed wing from Mayo to Clark Lakes and then by a roughly two mile tote trail to the property or by helicopter from Mayo.

### History:

The initial claims were staked in 1967 and 1968 following a soil and silt geochemical survey. Some bulldozer trenching was carried out in 1968. In 1970, the property was purchased by Bullion Mountain Mining Company Limited who carried out soil sample surveys and drilled 11 holes using Winkie AX equipment. Further drilling was carried out in 1971 and

1972. In 1972 the property was optioned by Scurry-Rainbow Oil Limited.

Description:

The underlying rocks consist of black to grey mottled limestone, minor graphitic and calcareous schist and schistose, gritty quartzite (Unit 3, Green, 1971) of Precambrian or Cambrian age. The rocks have been folded into a northwest trending, steeply plunging antiform of quartzite with a core of sheared and crumpled graphitic schist and limestone. Galena with lesser sphalerite and minor pyrite occur in drag folds and pipe-like replacements in limestone and as narrow veins in the quartzite, phyllite and limestone.

Current Work and Results:

When the property was visited in late August, the company had completed some 1,500 feet of drifting from an adit at the 3,300 foot elevation. The drift was headed east-southeast for approximately 650 feet and then turned southwest. A northeast-trending silver-bearing vein was encountered first at about 800 feet where it was 8 to 10 feet wide and contained bands of galena and sphalerite with some chalcopyrite. The vein was highly oxidized and contained abundant earthy iron oxides. Further along the drift galena and sphalerite occurred in mineralized stringer zones about 3 to 4 feet wide.

A program of underground drilling was also scheduled, on completion of the underground drifting.

(6)SON, PIK	Antimony, Silver, Gold
George Van Bibber	105 M 11
Post Office Box 125	(63°35'N, 135°12'W)
Mayo, Yukon Territory	

Reference: G.S.C. Map 890 A

Claims: PIK 1-6, SON 7-26

Location and Access:

The property is situated astride a small creek, referred to locally as 4 Mile Creek, roughly 20 miles due east of Mayo. Access in 1973 was by helicopter from Mayo; a tote road runs to the property from Mayo but was impassable by wheeled vehicles in 1973.

History:

The SON claims were staked in November, 1970, following the discovery of a large boulder of stibnite in 4 Mile Creek. The PIK claims were staked in October, 1971. The main showing was trenched in 1971 and 1972.

Description:

The property is underlain by flaggy to blocky weathering, massive pebbly quartzite with interbedded schist and phyllite (Unit 6, G.S.C. Map 890 A) belonging to the Yukon Group of Precambrian age or younger. To the northeast these rocks are underlain by interbedded quartz-mica schist and schistose quartzite (Unit 5, G.S.C. Map 890 A) also belonging to the Yukon Group.

Current Work and Results:

In 1973, additional trenching and stripping of the main showing was carried out. The main showing was exposed along the north bank of 4 Mile Creek and consisted of a vein of stibnite within highly and irregularly sheared, schistose quartzite. The vein was roughly 12 to 14 inches thick, striking east and dipping 45° north and was exposed for about 100 feet along strike. Vein material varied from massive, coarse crystalline stibnite to fine-grained stibnite containing quartz and quartzite fragments. Stibnite also occurred in isolated pockets of high grade material within the sheared quartzite. A grab sample of the high grade vein material assayed 58.8 per cent antimony, 0.01 per cent arsenic, 12.6 ounces per ton silver, 0.01 ounces per ton gold and trace mercury. Small amounts of bismuth have also been reported.

HESS MOUNTAINS AREA

Rogue River

(7) PLATA	Silver, Lead, Zinc
Dynasty Explorations Limited	105 N 9
330 - 355 Burrard Street	(63°35'N, 132°02'W)
Vancouver 1, British Columbia	

References: Blusson and Tempelman-Kluit (1970, pp. 29-32)

Claims: PLATA 1-232, 241-288, INCA 1-32

Location and Access:

The claims form contiguous blocks situated in the Bostock Range of the Hess Mountains roughly halfway between the Rogue and Hess Rivers. Access in 1973 was by fixed wing from Ross River, 108 miles to the south. Narrow Lake, 7 miles south of the property, was used by float planes and a 2,200 foot airstrip 6 miles south of the property served wheeled aircraft. The property itself was then reached by helicopter.

History:

The claims were staked in August and September, 1972, to cover a high-grade silver-lead-zinc showing. The showing had been previously staked in 1969 as the GREG claims, but these had lapsed.



### Description:

The area is underlain by argillaceous sediments ranging from Precambrian to Mississippian in age. The oldest sediments are Proterozoic red, green and grey slates with some interbedded quartzite and rare limestone and dolomite (Unit 7, Blusson and Tempelman-Kluit, 1970). These appear to be unconformably overlain by Devonian-Mississippian black clastics comprising argillite, chert, chert-pebble conglomerate and minor limestone (Unit 12, Blusson and Tempelman-Kluit, 1970). The sediments are cut by several small granitic stocks of probable Cretaceous or Early Tertiary age (Unit 14, Blusson and Tempelman-Kluit, 1970) and several outcrops of dikes or sills of quartz muscovite porphyry and aplite occur on the property.

The sediments strike west to west-northwest and are generally isoclinally folded and displaced by bedding plane faults. They are also cut by two sets of faults, one trending northeast and the other trending roughly northwest. The northeast-trending faults contain breccia zones with quartz, carbonate and pyrite, and creeks in the area have some rusty seepages associated with them. A northwest-trending fault zone referred to as the Plata fault zone occurs on the western portion of the property. The zone dips 65° southwest, close to the bedding and appears to be a fault with right lateral displacement between Proterozoic slates and younger black argillite and slate. A number of mineral showings are associated with this zone.

Showings on the Plata property consist of numerous vein types including galena-sphalerite-tetrahedrite veins, quartz-tetrahedrite veins, galena veins, siderite-sphalerite-galena replacements and arsenopyrite-pyrite-galena-boulangerite-tetrahedrite veins. High silver values are associated with galena and tetrahedrite. The major showings on the Plata property occur mainly on the north flank of an anticlinal structure cut by at least four different sets of faults or fractures and it is uncertain as yet which of these structures controls mineralization.

To date, six major showings have been discovered, including the main, or No. 4 showing. On this showing, the vein has been traced for over 700 feet along strike with widths varying from 5 to 18 feet. The No. 4 vein strikes roughly N 80° E, dips 45° S and appears to be in a bedding plane fault between black slate and phyllite on the footwall and rusty, limy quartzite on the hanging wall. Vein material consists of quartz, arsenopyrite, pyrite, galena, tetrahedrite, boulangerite and sphalerite in varying amounts.

### Current Work and Results:

The property was initially examined in late 1972 by a program of hand trenching and pitting, geophysical and geochemical surveys and diamond drilling.



A total of 13 hand pits or trenches were dug or blasted, including 5 on the main showing. Mineralized float was encountered in overburden in a number of locations where actual bedrock was not reached.

The geophysical survey consisted of a test ground E.M. survey over the main showing. The vein was found to give a definite dip angle response at high frequency (1830 HZ) and a marked increase in field strength. There was no distinguishable response at low frequency (390 HZ).

Soil sampling was conducted on a grid over the main showing and samples were analyzed for copper, lead and zinc. A major lead anomaly was found to correspond closely with the main showing vein system. There was little zinc response except for two downslope anomalies near the east and west extremities of the known vein system. A second area of lead and zinc anomalies occurs on the western portion of the claims. Some galena is known to account for part of the lead anomaly, but the remainder is unexplained.

Diamond drilling was undertaken to outline structure and grade on the No. 4 vein and six holes totalling 1,315 feet were drilled. Core recovery varied from 20 to 100 per cent, and was poorest in fault gouge in the hanging wall of the vein. In such instances, sludge samples were taken when circulation permitted. The drilling confirmed continuation of the vein system from the surface for at least 750 feet down dip, although the dip appears to flatten slightly to 35 to 40° S compared to 45° S at the surface. The width of the vein including fault gouge varied from 3 feet up to 20 feet. In hole No. 4 the vein was 6 feet wide and ran 10 ounces per ton silver, 3.4-8.0 per cent lead and 10.8-15.3 per cent zinc. The other holes contained lower grades and the assays were generally lower than for surface samples. Also, the silver-lead ratios obtained in the core were on the order of 2 to 1, compared to 5 to 1 from surface samples.

Further work in 1973 included more soil sampling in addition to 34,500 feet of bulldozer trenching. Some 16 miles of road plus a 2,200 foot airstrip were also built. Emphasis in 1974 is to be on bulldozer trenching and detailed structural geological mapping.

#### MACMILLAN PASS AREA

(8) MACMILLAN TUNGSTEN	Tungsten, Copper
Amax Northwest Mining Company Limited	105 O
601 - 535 Thurlow Street	105 P
Vancouver, British Columbia	(63°17'N, 130°07'W)

References: Green (1965, pp. 48-50); Findlay (1969a, p.88; 1969b, pp. 52-53); Allan and Findlay (1972, pp. 97-101).

Claims: PAT, BETTY, BORDER, PAR, PIT, DONNA, GULL - total of 89

### Location and Access:

The claims straddle the Yukon-Northwest Territory boundary at a point roughly 7 miles northwest of Macmillan Pass. A 7-mile access road, built in 1970, connects the property with the Canol Road which is now open for vehicular traffic in the summer months only.

### History:

The property was discovered and staked in 1962 by Southwest Potash Corporation, a subsidiary of Amax. Some surface exploration was carried out in 1963, 1964 and again in 1967. Diamond drilling on the property was begun in 1968 when 4,647 feet were drilled. Another 31,000 feet were drilled in 1971 and 1972 which outlined approximately 30 million tons of 0.9 per cent  $WO_3$  (Northern Miner, February 8, 1973).

### Description:

The property is underlain by phyllites and mica schists of presumed Proterozoic (?) age which are unconformably overlain by 1,000 to 1,500 feet of argillaceous siltstones and impure limestones ranging from Ordovician to Devonian in age (Allan and Findlay, 1972). The sediments are intruded by two small stocks of quartz monzonite referred to as the Rockslide Mountain and Peak 7280 stocks. Tungsten and copper mineralization occur in skarn zones developed in calcareous sediments adjacent to the southern contact of the Peak 7280 stock.

The skarn and associated mineralization occur in two distinct stratigraphically related zones within the sediments. The lower, or B zone, occurs in a limestone, now altered to marble and skarn, 50 to 100 feet thick, striking roughly east-west and dipping 30° south. The upper zone is a group of zones, designated D, E and F which occur in a group of units up to 400 feet thick comprising argillaceous limestone, siltstone and minor volcanic conglomerate and separated from the underlying B zone by approximately 350 feet of argillite and argillaceous siltstone.

Two types of skarn have developed in the zones. One is a light-coloured skarn commonly composed of diopside with lesser amounts of plagioclase and quartz; the other is a dark-coloured skarn composed principally of pyroxene, with varying amounts of garnet, hornblende, plagioclase, and quartz. Tungsten occurs as scheelite, the bulk of which forms disseminated grains in dark-coloured skarn. Minor amounts of scheelite also occur as disseminations in the Peak 7280 monzonite and localized in veins cutting both the stock and adjacent skarn. Chalcopyrite is the primary copper mineral and occurs only in the dark-coloured skarn in the B zone.

### Current Work and Results:

In 1973, an adit was driven at the 6,200 foot level and four crosscuts driven on the B zone. Approximately 250 tons of crushed B zone ore were sent out for metallurgical testing and 75 tons for crushing and grinding tests at the Colorado Laboratory of the parent company, American Metal Climax. Some stoping was also carried out to test the competency of the hanging wall rock.

In addition to underground drifting, over 5,000 feet of underground drilling was carried out. This work was aimed primarily at testing the grade and continuity of the eastern portion of the B zone.

### (9) SLATE

Mr. S. Belzberg  
450 West Georgia Street  
Vancouver, British Columbia

Tungsten  
105 0 8  
(63°15'N, 139°15'W)

Claims: SLATE 1-64

### Location and Access:

The property is situated immediately west of the Amax Tungsten property and 10 miles south of Keele Peak. Access is by helicopter from an airstrip 6 miles south of the property on the Canol Road or from Ross River, 150 miles to the southwest.

### History:

The claims were staked in May, 1973. No previous work in the area is recorded although there have undoubtedly been reconnaissance geochemical surveys in the region.

### Description:

The property is underlain by sediments and volcanics ranging from Cambrian and Precambrian phyllite, shale and mica schist to late Paleozoic shale and slate. No mineral occurrences have been reported.

### Current Work and Results:

During 1973, a brief geological examination and ground magnetometer survey were carried out. A series of low magnetic anomalies were outlined, probably indicating a fault zone or similar feature. Further work was recommended including detailed geological mapping, soil sampling and a detailed magnetic survey.

(10) MOOSE

Spartan Explorations Limited  
3165 Dunbar Street  
Vancouver, British Columbia

Barite  
105 0 1  
(63°04'N, 130°12'W)

Claims: MOOSE 1-4

Location and Access:

The claim group is situated approximately 12 miles southwest of Macmillan Pass and one-half mile northwest of the Canol Road, which provides ready access.

History:

The claims were staked in August, 1973, in the same area as the BARITE claims, staked in June, 1972, but subsequently allowed to lapse. No previous work on these claims has been reported.

Description:

The area is underlain by Upper Devonian and (?) Mississippian black shale and argillite with minor chert sandstone and chert-pebble conglomerate. The rocks have been folded along axes trending roughly northwest. Two zones of bedded barite have been exposed on the surface, one up to 110 feet wide and 850 feet long and the second up to 80 feet wide and 750 feet long. The second zone lies about 300 feet northwest of the first zone. No sulphide minerals have been observed.

Current Work and Results:

Hand trenching and pitting were carried out late in the season and indicated barite of drilling mud grade. Bulldozer trenching and possibly diamond drilling are planned for the property in 1974.

BONNET PLUME RIVER AREA

Goz Creek

(11) Goz Creek Property	Zinc
Barrier Reef Resources Limited	106 C 7, 8
1418 - 355 Burrard Street	(64°25'N, 132°32'W)
Vancouver, British Columbia	

References: Murphy and Sinclair (1974)

Claims: WALT 1-8, VUH 1-8, BAF 1-96, HAM 1-16, ANG 1-8,  
ANN 1-8, LIN 1-8, DUO 1-8, STOL 1-8, LUV 1-8,  
GOZ 1-8, BON 1-8.

Location and Access:

The claim groups form a single contiguous block trending east straddling Goz Creek and are located approximately 125 miles northeast of Mayo. In 1973 access was by fixed wing from Mayo to Rackla Lake and then by helicopter to the property itself.

History:

Zinc showings were found in the Goz Creek area by visual prospecting and geochemistry early in the 1973 field season and the subsequent staking took place in July. The discovery resulted in a major staking rush in the area in August and September. Major staking activity also took place in the winter months of 1973-74.

Description:

The Barrier Reef discovery occurs near the top of a thick sequence of carbonate and pelitic rocks ranging from Precambrian to Lower Cambrian in age. The host carbonate has been correlated with the Lower Cambrian Backbone Formation (Blusson, personal communication) and undergoes abrupt thickening in the area and a facies change north-eastward to shale. The carbonate unit is also bordered by shale stratigraphically both above and below. Mineralization occurs mainly within breccia zones within the dolomite and consists largely of low iron, light-coloured sphalerite with minor amounts of galena and some boulangerite. Secondary quartz is abundant and often stands out in sharp relief on weathered surfaces. Secondary zinc carbonate is abundant locally, but because the sphalerite contains little iron and there are virtually no associated iron sulphides, the amount of gossan which has developed is negligible.



### Current Work and Results:

Field work in 1973 consisted mainly of preliminary prospecting and sampling of mineralized outcrops. One group of showings containing sphalerite occurred over a strike length of 4,400 feet and had an average thickness of 25 to 40 feet. The dip was roughly  $27^{\circ}$  to the south, approximately parallel to the slope of the hillside. Chip samples ranged as high as 50% zinc and minor lead over 15 feet. No silver assays were reported by the company. However, one grab sample assayed (Whitehorse Assay Office) 31.8% zinc, 0.5% iron, 0.10% cadmium and 0.88 ounces per ton silver. In 1974 the company plans to carry out geological mapping and diamond drilling.

### Harrison Creek

(12) Harrison Creek	Lead, Zinc
Barrier Reef Resources Limited	106 C 7
1418 -355 Burrard Street	( $64^{\circ}23'N$ , $132^{\circ}50'W$ )
Vancouver, British Columbia	

References: Murphy and Sinclair (1974)

Claims: GYK 1-8, GEP 1-8, KIS 1-8, RAY 1-8, BOB 1-8

### Location and Access:

The Harrison Creek Claims are situated roughly 6 miles west of the Barrier Reef property on Goz Creek. The claims were reached by helicopter from Rackla Lake in 1973.

### History:

The claims were staked in July, 1973 to cover lead-zinc showings discovered earlier by prospecting. Major staking also occurred in this area after the discovery became known.

### Description:

The area is underlain by Precambrian sediments of the Sheepbed Formation (Blusson, Personal communication). Lead-zinc mineralization occurs near the top of a carbonate sequence which changes facies to shale to the northeast. The mineralized zone occurs in breccia consisting of sub-angular fragments of dolomite embedded in a pyrite-quartz matrix and accompanied by minor amounts of galena and yellow sphalerite.

### Current Work and Results:

Field work in 1973 consisted of preliminary prospecting and sampling. In one location surface sampling over 35 feet averaged 2.5 per cent combined lead and zinc.

(13)CYR, FXE, ED, PB,	Lead, Zinc
ZN, CYP, SCREW	106 C 6, 7
Cypress Resources Limited	(64°25'N, 132°53'W)
705 - 900 West Hastings Street	
Vancouver, British Columbia	
V6C 1B2	

References: Murphy and Sinclair (1974)

Claims: CYR 9-40, FXE 1-8, ED 1-8, PB 1-8, ZN 1-8, CYP 1-40, SCREW 1-16

Location and Access:

The claim groups form a single block of 120 claims beside the Bonnet Plume River 13 miles northeast of Rackla Lake. Fixed wing from Mayo to Rackla Lake and then helicopter was the normal mode of access in 1973.

History:

The claims were staked in July and August, 1973 following the lead-zinc discovery by Barrier Reef Resources.

Description:

The area is underlain by Precambrian sediments of the Sheepbed Formation (Blusson, personal communication). Zinc showings occur near the top of a thick carbonate unit which changes facies to shale to the northeast.

Current Work and Results:

Surface prospecting conducted in 1973 indicated zinc mineralization extended for over 22,000 feet along strike. Three shallow holes were drilled but two had to be stopped because of water problems before intersecting the mineralized horizon. However, Hole 73-2 was reported to have an intersection of 28 feet running 8.3% zinc (Northern Miner, November 1, 1973). Recommendations for further work in 1974 included 5,000 feet of diamond drilling in addition to trenching, geological mapping and geophysics.

Corn Creek

(14) Corn Creek Property	Lead, Zinc
Barrier Reef Resources Limited	106 C 10, 11, 14, 15
1418 - 355 Burrard Street	(64°45'N, 133°00'W)
Vancouver, British Columbia	

References: Murphy and Sinclair (1974)

Claims: JOHN 1-8, LEO 1-8, TG 1-8, DON 1-8, BARB 1-8,  
GIN 1-8, ROB 1-8

Location and Access:

The claims form a contiguous block at the headwaters of Corn Creek roughly 14 miles east-northeast of Pinguicula Lake. Access in 1973 was by fixed wing from Mayo to Rackla or Pinguicula Lake and then by helicopter.

History:

The claims were staked in August, 1973 following a lead-zinc discovery made by visual prospecting. Additional staking took place in the area after the discovery became known.

Description:

The area is apparently underlain by carbonate rocks of the Precambrian Sheepbed Formation (Blusson, personal communication). The mineral showings occur in carbonate rocks and consist of sphalerite and galena occurring as open-space filling in porous dolomite and in fractures and as matrix in fault breccia.

Current Work and Results:

During the 1973 field season, visual prospecting and sampling were conducted on the property. Three lead-zinc-silver occurrences were found.

Dolores Creek

(15) LAD

Cypress Resources Limited  
705 - 900 West Hastings Street  
Vancouver, British Columbia

Copper  
106 C 13  
(64°51'N, 133°41'W)

References: Findlay (1969a, pp. 30-31; 1969b, pp. 8, 16-17).

Claims: LAD 1-2, 49-56; SUN 1-8; AIR 1-16

Location and Access:

The claims are located at the mouth of Dolores Creek on the south side. The property lies 110 miles north-northeast of Mayo from which it can be reached by helicopter. A winter tote road built in 1968 from the Wind River Trail passes through the property.

History:

The LAD 1-2, SUN 1-8, AIR 1-16 claims were most recently staked in March, 1972, and the LAD 49-56 claims the following August. The property has apparently received some attention previously but very little is known of the earlier work.

Description:

The property lies within a belt of Precambrian meta-sediments at the base of which is the Katherine Group of interbedded slate, phyllite, quartzite, dolomite and limestone. Overlying this unit unconformably is the Rapitan Formation composed of coarse breccia fragments and randomly distributed dioritic to gabbroic sills, dykes and stocks. A thick carbonate sequence overlies the Rapitan.

Current Work and Results:

Soil sampling and trenching were carried out in 1972. Further geochemical surveying and ground magnetic and electromagnetic surveys were carried out in 1973. At least one hole of 330 feet was drilled on coincident soil sample and electromagnetic anomalies before the drill was moved to the Bonnet Plume River property to the south, sometime in August.

### Slab Mountain

(16)DIT  
Minex Development Company Limited      Copper, Molybdenum  
210 - 470 Granville Street      106 D 16  
Vancouver 2, British Columbia      (65°00'N, 134°00'W)

References: Findlay (1969b, pp. 17-18); Green (1972)

Claims: DIT 1-16

#### Location and Access:

The property is situated on Slab Mountain, a precipitous mountain peak on the north side of the Bonnet Plume River about 110 miles north-northeast of Mayo. Access in 1973 was by helicopter from Mayo.

#### History:

The Slab Mountain copper occurrence was first staked as the SLAB group in 1968 by Cyprus Exploration Corporation Limited, who performed a brief geological examination at that time. The occurrence is conspicuous by its widespread malachite staining but there is little evidence of any prior work. In May, 1973, the property was restaked as the DIT claims and are currently held by D.I.T. Holdings Limited under option to Minex Development Company Limited.

#### Description:

The property is underlain by thinly-bedded, limy and cherty rocks of Precambrian age (Unit 1a, Green, 1972) separated by faults from grey-green schist and phyllite to the north. The beds strike northwest and are vertical to south dipping. Chalcopyrite and pyrite with minor molybdenite and cobalt mineralization are reported to occur as disseminated grains in thin-bedded, cherty and limy, andesitic tuffs.

#### Current Work and Results:

During 1973, brief examinations were made of the copper occurrence and further work was recommended, including diamond drilling.



DAWSON MINING DISTRICT

FORTY MILE AREA

Clinton Creek

(17) CLINTON CREEK MINE	Asbestos
Cassiar Asbestos Corporation Limited	116 C 7
85 Richmond Street West	(64°27'N, 140°42'W)
Toronto, Ontario	

References: Green and Godwin (1964, pp. 19-21); Green (1965, pp. 25-27; 1966, pp. 25-26); Christian (1966); Findlay (1967, pp. 27-29; 1969a, pp. 31-32; 1969b, pp. 18-20); Craig and Laporte (1972, pp. 30-31); Green (1972, pp. 143-144).

Claims: 147 claims

Location and Access:

The open pit is roughly 50 miles northwest of Dawson and is 5 miles up Clinton Creek, a left bank tributary to the Fortymile River. Access is via a 26-mile all-weather road which leaves the Sixtymile-Boundary Road at Mile 33. Asbestos fibre is shipped by truck to Whitehorse, a distance of approximately 390 miles, and then by rail to the port of Skagway.

History:

The property was staked in the spring of 1957 and explored in 1957 and 1958. Development work was carried out in 1963 and 1964 and production began in 1967.

Description:

The Clinton Creek deposit is in one of a number of ultramafic bodies (Unit E, Green, 1972) that occur in metamorphic rocks of the Nasina Series (Unit A, Green, 1972). The enclosing metamorphic rocks consist mainly of black phyllite, platy black limestone, grey argillite and brown weathering, micaceous gritty quartzite. The ore body is a westerly-plunging, northerly-dipping lens in the hanging wall of a sheared serpentine mass, typically lustrous, green to grey-green, with numerous polished slip surfaces. The asbestos occurs almost entirely as cross-fibre veins, one quarter inch or less wide.

Current Work and Results:

Production in 1969 was all Canadian Group 4 and 5 (cement fibre). In 1971, recovery of the longer fibre Cassiar grade CC was begun. The new CZ fibre, formerly passed off as waste, has been used in experimental asphalt-asbestos mixtures. Diamond drilling was performed in 1973 to test possible reserves.

Operating Summary for 1973, 1972 and 1971 is as follows:

---

	<u>1973</u>	<u>1972</u>	<u>1971</u>
Tons milled	1,247,154	1,267,178	1,447,863
Rate (tons/day)	4,838	4,400	4,460
Grade (% recovery)	5.64	5.66	5.37
Reserves (probable)	7,861,123	9,250,000	18,750,000
(possible)	8,792,000	9,500,000	

---

(18) ADD Asbestos  
D. Reinke and G. Needoba 116 C 7  
107 - 325 Howe Street (64° 29' N, 136° 52' W)  
Vancouver 1, British Columbia

References: Green (1972, p. 149)

Claims: ADD 1-12

Location and Access:

The property is situated two miles north of the Clinton Creek Mine immediately east of the mine airstrip. Access is by 60 miles of gravel road from Dawson.

History:

The property was first staked as the FOXY claims by the Asbestos Corporation (Explorations) Limited who drilled two holes in 1964 totalling 900 feet. Both holes cut serpentized ultrabasic rocks containing traces of asbestos (Green, 1972, p. 149). The ADD 1-8 claims were staked in August, 1972, and the ADD 9-12 claims in July, 1973.

Description:

The geology of the area is known only from residual rock chips and boulders as there are no outcrops on the property. The area is underlain by chloritic phyllite and black argillite of the Nasina Series (Unit A, Green, 1972) intruded by serpentized ultrabasic bodies (Unit E, Green, 1972), the latter outlined by magnetic anomalies.

Current Work and Results:

A ground magnetic survey conducted in 1973 outlined two magnetic anomalies. Recommendations for further work included trenching and possibly diamond drilling.

South Boundary Creek

(19)RH

Minas De Cerro Dorado Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Asbestos

116 C 7  
(64°29'N, 140°56'W)

Reference: Green (1972)

Claims: RH 1-6

Location and Access:

The property is situated 58 miles northwest of Dawson, two and a half miles east of the Alaska border. Access in 1973 was by helicopter from the end of the Clinton Creek Mine road.

History:

The RH claims were staked in August, 1972. The group is on a magnetic anomaly which was explored in the 1960's at which time geological and geophysical surveys were carried out.

Description:

Outcrop in the area is rare but it is unglaciated and much of the geology was inferred from boulders and rock chips in the soil. The eastern half of the property is underlain by schist and slate of the Nasina Series (Unit A, Green, 1972). The western portion of the property is underlain by ultrabasic rocks (Unit E, Green, 1972) with a zone of serpentinization along the contact with the metamorphic rocks. Minor amounts of asbestos fibre 1/8 inch or less were noted.

Current Work and Results:

Geological mapping and a ground magnetometer survey were conducted in 1973. A magnetic anomaly roughly 4,000 feet long and 800 feet wide trending east was outlined. Trenching was recommended in the area of the anomaly.

SIXTYMILE AREA

Mount Hart

(20) HART MOUNTAIN	Gold
Silver Standard Mines Limited	115 N 16
808 - 602 West Hastings Street	(63°54'N, 140°25'W)
Vancouver, British Columbia.	

References: Tempelman-Kluit (1972, pp. 36-39; 1973, pp. 48-49)

Claims: HART 1-24, DOLLY 1-8

Location and Access:

The HART 1-8 claims occur in a single block on the south side of Mount Hart, roughly 35 miles southwest of Dawson City. The HART 9-24 and DOLLY 1-8 claims are in a separate block about a mile north of the HART 1-8 group on the north side of Mount Hart. Access in 1973 was by helicopter from Dawson.

History:

The claims were staked in January, 1973 in response to the discovery of gold by Tempelman-Kluit (1973) during regional mapping of the area.

Description:

The area is underlain by Permian (?) rocks consisting of strongly foliated muscovite biotite granodiorite and undifferentiated gneiss with lesser quartz mica schist and minor micaceous quartzite (Unit 2, Tempelman-Kluit, 1972). On the property itself these rocks are overlain by massive well-indurated quartz-chert-quartzite-pebble conglomerate of Tertiary age included in the Carmacks Volcanics (Unit 15, Tempelman-Kluit, 1972). Visible gold in this conglomerate was noted by Tempelman-Kluit (1973) on a ridge 1.7 miles southwest of Mount Hart.

Current Work and Results:

Field work in 1973 consisted of geological mapping and rock geochemistry. No significant gold showings were encountered and the claims were allowed to lapse.

OGILVIE MOUNTAINS AREA

Fish Creek

(21)AS, GH	Copper, Gold
Belmoral Mines Limited	116 A 5
107 - 325 Howe Street,	(64°15'N, 137°55'W)
Vancouver 1, British Columbia	

Reference: Green (1972)

Claims: AS 1-8, GH 1-2

Location and Access:

The claims are situated in two separate blocks about one quarter mile apart 46 miles east-northeast of Dawson and 17 miles east of the north Klondike River. Access in 1973 was by helicopter from Dawson or from Mile 41 of the Dempster Highway.

History:

The AS claims were staked in September, 1972, and the GH claims in July, 1973. No previous work in the area is recorded.

Description:

The property is underlain by Precambrian and/or Cambrian shale, quartzite, metasiltstone, dolomite and limestone (Unit 3, Green, 1972) intruded by biotite hornblende syenite porphyry of Cretaceous age (Unit 21b, Green, 1972). Copper and gold occurrences have been found along the intrusive-sediment contact zone.

Current Work and Results:

Detailed prospecting and mapping carried out in 1973 located five mineral occurrences which were separated into two groups. The first group consists of disseminated chalcopyrite, arsenopyrite and pyrite in sediments or intrusive within one hundred feet of the contact; the second group consists of arsenopyrite and/or chalcopyrite in quartz veins in tension fractures in the syenite porphyry. Although the continuity of the mineralized veins and low grade disseminated copper was not fully tested, the reported grades of copper and gold were relatively low and not encouraging.



MCQUESTEN RIVER AREA

Fortymile Creek

(22) STERLING	Lead, Silver
Silver Standard Mines Limited	115 P 15
808 - 602 West Hastings Street	(63°49'N, 136°57'W)
Vancouver, British Columbia	

Reference: Bostock (1964)

Claims: STERLING 1-56

Location and Access:

The claims are situated at the headwaters of Fortymile Creek, roughly 24 miles northeast of McQuesten and 43 miles west of Elsa. Access in 1973 was by helicopter from Mayo, roughly 35 miles to the southeast.

History:

The original group of STERLING claims was staked in August, 1971; the remaining claims were staked a year later.

Description:

The property is underlain primarily by Yukon group metasediments comprising schist, quartzite, phyllite and limestone (Unit 4, Bostock, 1964). These rocks are intruded by stocks and dykes of granite, granodiorite and/or quartz monzonite of Jurassic or Cretaceous age (Unit 14, Bostock, 1964). Veins observed on the claims consist of sulphide stringers containing argentiferous galena in a chlorite-muscovite schist.

Current Work and Results:

Roughly 2,000 feet of trenching in 10 trenches was carried out in 1973. Permafrost was encountered in each case, necessitating the use of a ripper. The results of this work were negative, and a number of claims have since been allowed to lapse.

WHITEHORSE MINING DISTRICT

DAWSON RANGE AREA

Casino Creek

- (23) CASINO Copper, Molybdenum, Gold  
Casino Silver Mines Limited 115 J 10, 15  
700 - 1177 West Hastings Street (62°43'N, 138°39'W)  
Vancouver, British Columbia  
V6E 2K5

References: Cockfield (1928, pp. 11A-13A; in Bostock, 1957, pp. 576-578); Green and Godwin (1964, pp. 22-24); Green (1965, pp. 34-35; 1966, pp. 39-42); Findlay (1967, pp. 32-34; 1969a, pp. 39-40); Archer and Main (1970); Phillips and Godwin (1970); Craig and Laporte (1972, pp. 55-57).

Claims: CAT, MOUSE, JOE, RAT, LOST, BOMBER, AIRPORT, VIC, TD,  
- total of 471.

Location and Access:

The property is situated south of the Yukon River between Canadian Creek and Casino Creek, about 190 miles northwest of Whitehorse. Access in 1973 was by fixed wing aircraft to an airstrip on the property.

History:

Production of placer gold from Canadian Creek has been recorded since 1911. Scheelite was recognized in 1915 and placer tungsten mining attempted in 1941. Silver-lead veins, discovered in 1936, were trenched during 1963 by Rio Tinto and Yukon Consolidated Gold Corporation. Casino Silver Mines Limited was formed in 1965 and investigated the veins during 1965 and 1967. Geochemical surveys were conducted in 1966 and 1968 and diamond drilling in 1967, 1969 and 1970. Following completion of this drilling, mineable reserves of 179 million tons of material grading 0.37 per cent copper and 0.023 per cent molybdenum (copper equivalent 0.45 per cent) were indicated.

Description:

The property lies along the northeast margin of the Klotassin Batholith, which consists locally of biotite quartz monzonite and granodiorite of Late Cretaceous age (Findlay, 1967, p. 40). The Klotassin Batholith intrudes Yukon Group schist, gneiss and quartzite with minor marble and conglomerate. Intruding the Klotassin rocks is the Casino stock dated at 70 m.y. or Early Tertiary (Archer and Main, 1970) and composed mainly of feldspar porphyry and coarse breccia with quartz porphyry matrix. The stock is intensely hydrothermally altered in a zonal pattern typical of porphyry copper deposits; an irregular central area

of potassic alteration followed successively outward by zones of advanced argillic alteration, phyllic alteration and propylitic alteration. Copper and molybdenum occur primarily as chalcopyrite and molybdenite, associated with magnetite, tourmaline and pyrite and concentrated mainly within breccia.

#### Current Work and Results:

Soil sampling, an electromagnetic survey and 4,662 feet of diamond drilling in 7 holes were carried out in 1973. The program was aimed at defining the higher grade eastern zone more closely and locating other high grade zones. Results were generally as expected except the higher grade eastern zone was proved smaller than anticipated.

#### Prospector Mountain

(24) STAR	Copper, Molybdenum
Starbird Mines Limited	115 I 5
427 - 510 West Hastings Street	(62°25'N, 137°50'W)
Vancouver, British Columbia	

Reference: Bostock (1936)

Claims: STAR 1-40

#### Location and Access:

The claims are located on the south flank of Prospector Mountain, roughly one mile from the summit. In 1973, access was by helicopter from the Minto airstrip, 31 miles to the east.

#### History:

The claims were staked in January, 1970, following the Casino rush, and were transferred to the present owners in April, 1970. No previous work on the property is reported.

#### Description:

The claims have roughly one or two per cent outcrop, but the area is unglaciated and residual boulders are considered representative of underlying bedrock. The southern three quarters of the claim group is underlain by the Jurassic Mount Nansen volcanics and sediments (Unit 7, Bostock, 1936) consisting of a basal basaltic layer overlain by fine sediments and tuffs and a sequence of intermediate fragmental rocks. Dykes of mafic to intermediate composition intrude these rocks.

The northern quarter of the property is underlain by granitic rocks belonging to the Cretaceous Klotassin Batholith (Unit 10, Bostock, 1936) which intrudes the Mount Nansen volcanics, the contact trending roughly northwest.

Pyrite was observed locally within the granitic rocks and rarely within the volcanics. A trace of malachite was observed at one locality within the volcanics. Magnetite is finely disseminated in the volcanic rocks adjacent to the granitic intrusive contact.

#### Current Work and Results:

The 1973 field work consisted of geological mapping and soil sampling. Soil samples, analyzed for copper, molybdenum and silver, outlined a copper anomaly along the intrusive contact with associated minor molybdenum anomalies. Recommendations for further work include rock sample analysis, ground magnetic, induced polarization and electromagnetic surveys.

#### Freegold Mountain

(25) TINTA	Lead, Zinc
Canex Placer Limited	115 I 7
1030 West Georgia Street	(62°17'N, 136°58'W)
Vancouver, British Columbia	

References: Bostock (1936; 1941, p. 26); Skinner (1961, pp. 35-36); Findlay (1969a, p. 34); Craig and Laporte (1972, p. 85)

Claims: TINTA 1-8

#### Location and Access:

The property is located at the headwaters of Stoddard and Merrice Creeks about two miles southwest of Granite Mountain. Access is by a four-wheel drive tote road, about six miles long, leading from mile 32 on the Mount Freegold road.

#### History:

The property was originally staked in 1930 to cover a quartz vein and has been explored intermittently since then (Skinner, 1961). In 1966, the ground was staked by Canex Aerial Exploration Limited and an E.M. 16 survey and a geochemical soil survey were conducted. Silgold Mines Limited optioned the property in 1968 and carried out sampling of the veins. Coin Canyon Mines Limited acquired an interest in the claims in 1969 and conducted a geochemical soil survey. Late in 1973, the claims were returned to the original owner, renamed Canex Placer Limited in 1972. The claims were subsequently optioned by Exeter Mines Limited.



Description:

The property is underlain by granite (Unit 10, Bostock, 1936), capped locally in the northeast corner of the claim group by Carmacks Volcanics (Unit 12, op. cit.). The exposed quartz vein strikes 300° and dips 80° north, with well-defined walls of granite. The vein carried galena and sphalerite in a mineralized zone from 2.5 feet to 10 feet wide. Chalcopyrite and pyrite are disseminated in the wall rocks on either side of the vein. The vein occurs within a zone of shearing up to 100 feet wide.

Current Work and Results:

Work in 1973 by Exeter Mines Limited consisted of four diamond drill holes totalling about 1,000 feet. Pyrite stringers with galena and sphalerite were encountered in the holes.

Mount Nansen

(26) MOUNT NANSEN	Copper, Molybdenum,
Cyprus Exploration Corporation Limited	Gold, Silver
555 South Flower Street	115 I 3
Los Angeles, California	(62°03'N, 137°08'W)
U.S.A. 90071	

Reference: Bostock (1936); Craig and Laporte (1972, pp. 88-89)

Claims: 347 claims

Location and Access:

The claims are situated in the Dawson Range about 30 miles west of Carmacks. Access in 1973 was by a 40-mile gravel road which leaves the Carmacks-Laforma Road about one mile west of the Nordenskiöld River bridge at Carmacks.

History:

The Webber gold-silver vein system was discovered in 1962 and subsequent exploration resulted in the discovery of the Huestis and other showings. Underground development was carried out in 1964, 1965 and 1966 and diamond drilling in 1965 and 1966. Production was begun in 1968 but ceased in April, 1969 due to inadequate gold recovery in the mill circuit.

In 1971, the property was optioned to Cyprus Mines Corporation, who staked an additional 39 claims (RUSK group). In 1971, exploration was carried out by the subsidiary company, Cyprus Exploration Company Limited, and consisted of soil sampling, ground magnetic and induced polarization surveys and some percussion and diamond drilling. Additional soil sampling and continued diamond drilling were carried out



in 1972.

Description:

The oldest rocks in the area consist of quartz-biotite schists and gneisses of the Yukon Group (Unit 1, Bostock, 1936). These are overlain by Jurassic or later volcanics of the Mount Nansen Group (Unit 7, Bostock, 1936) consisting of basic to intermediate flows and pyroclastics, and rocks of both units are intruded by Tertiary quartz-feldspar porphyry (Unit 13, Bostock, 1936). Silver and gold-bearing quartz veins and stockworks cut highly altered quartz-feldspar porphyry and Yukon Group rocks, and were the attention of earlier exploration. Current exploration is focused on porphyry copper-molybdenum mineralization in the quartz-feldspar porphyry, within which a leached oxide capping and enriched chalcocite blanket have been recognized. Silicified and tourmalinized breccia pipes have also been recognized within the main intrusive, although their relationship to porphyry mineralization is unclear.

Current Work and Results:

Exploration in 1973 consisted of some trenching and three diamond drill holes totalling roughly 2,000 feet. No significant intersections were reported.

Dark Creek

(27) DEF GROUP	Copper, Silver, Gold
United Keno Hill Mines Limited	115 I 11
405 Main Street	(62°38'N, 137°15'W)
Whitehorse, Yukon Territory	

References: Bostock (1936); Craig and Milner (in preparation).

Claims: DEF 1-87, 1379 Fr.

Location and Access:

The DEF claims lie south of Wolverine Creek 4 miles west of the Yukon River and 49 miles northwest of Carmacks. Access in 1973 was by helicopter from the Minto airstrip 12 miles to the southeast. A tote road is presently being built from Carmacks to the United Keno and Asarco-Silver Standard properties and hopefully will be finished in time for the 1974 field season.

History:

Outcrop stained with malachite was discovered and staked north of Silver Standard's MINTO claims during a prospecting program in 1971. Subsequent soil geochemistry, EM, IP, magnetic and geological surveys outlined anomalous zones trending northwest. Grab samples from outcrops in the area assayed 0.15-1.98 per cent copper, 0.001 per cent molyb-

denum and 0.6 ounces per ton silver. In 1972 the anomalous zones were investigated by 13,500 feet of bulldozer trenching. The exposed copper mineralization appears to be oxidized almost entirely to malachite and azurite; only minor primary sulphides were found in place.

#### Description:

Bedrock in the area is poorly exposed with only 1-2 per cent outcrop. Underlying rocks consist mainly of fine-grained to coarse-grained and locally porphyritic granite, granodiorite, quartz monzonite and diorite, (all Unit 10, Bostock, 1936) together with foliated, biotite-rich, gneissic bands. Contacts between the foliated and non-foliated units appear gradational on the hanging wall contact and sharp on the footwall contact. The granitic and gneissic rocks are cut by numerous small aplite and pegmatite dykes and a few dykes of volcanic material.

The primary mineral occurrence consists of finely disseminated grains to irregular blebs and coalescing masses of chalcopyrite and bornite, interstitial to and replacing gangue in zones restricted mainly to the gneissic, biotite-rich bands, although some high grade material occurs in a fine-grained, siliceous phase of the intrusive. Some bornite and chalcopyrite also occur as fracture fillings and veinlets. Pyrite and magnetite are present in minor amounts.

#### Current Work and Results:

In 1973, the company carried out detailed soil sampling, EM, IP and magnetic surveys, 3,750 feet of additional bulldozer trenching, and diamond drilled 41 holes for a total of 25,432 feet. A major mineralized zone over 1,000 feet across was discovered in a relatively flat-lying, gneissic unit 150 to 300 feet below surface. The mineralized zone is roughly lens-shaped with the thickness ranging from 100 feet up to more than 200 feet along a central, roughly north-south axis and thinning to 10 feet or less on the edges. To the south, the mineralized zone extends onto the MINTO claims belonging to Asarco and Silver Standard. A north-dipping, east-west fault appears to truncate the mineralized zone to the north; the possible extension of the zone on the north side of the fault has not yet been discovered.

The grade of copper is roughly correlative with the thickness of the mineralized zone. Along the thicker central axis assays range from 1.04 to 4.99 per cent copper but are generally one per cent or less along the flanks. High gold and silver values are correlative with the high copper values and vary from 0.01 to 0.06 ounces per ton and 0.1 to 0.6 ounces per ton respectively along the axis. Along the flanks gold drops to 0.005 ounces per ton and silver to 0.05 ounces per ton. No definite figures for tonnage and grade are available, but reserves are thought to be in excess of two million tons grading roughly two per cent copper. Combined

with the extension of the zone onto the MINTO claims, total reserves for the two properties are probably in excess of six million tons (Yukon News, September 13, 1973).

In 1974, the company plans to continue diamond drilling for accurate grade and tonnage calculations and to explore for the possible extension of the mineralized zone north of the east-west fault.

(28) MINTO

Asarco Exploration Company  
of Canada Limited  
504 - 535 Thurlow Street  
Vancouver, British Columbia  
Silver Standard Mines Limited  
808 - 602 West Hastings Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62°37'N, 137°15'W)

Reference: Bostock (1936)

Claims: MINTO 1-73, 75-94, 94-97 Fr.

Location and Access:

The MINTO claims are situated directly south of United Keno Hill Mining Company's DEF property, roughly 12 miles west of the Minto airstrip. In 1973 the property was serviced by helicopter from the Minto airstrip and by fixed wing from Whitehorse to an airstrip on the MINTO property. During the winter of 1973-74 a tote road was built from Carmacks along the west side of the Yukon River to the MINTO and DEF groups.

History:

The claims were staked by Silver Standard Mines Limited in the summer of 1971 following a reconnaissance soil geochemical survey. Subsequent property work that year included 7 holes totalling 3,800 feet of diamond drilling. In 1972 Silver Standard drilled another 6,000 feet in 12 holes and cut bulldozer trenches across the mineralized zone.

Description:

Outcrop in the area is very poor and exposure is probably less than 2 per cent. The underlying rocks consist mainly of grey biotite granodiorite and prophyritic granite characterized by pink orthoclase phenocrysts (Unit 10, Bostock, 1936). Within these intrusive rocks are biotite-rich foliated zones up to several hundred feet wide or more. Copper mineralization is restricted to these foliated zones and occurs as disseminated to irregular, coalescing blebs of bornite and chalcopyrite with minor gold and silver content. Drilling in 1971 and 1972 outlined four separate zones of low grade copper.

Current Work and Results:

Work on the MINTO claims was resumed in August 1973 when Silver Standard moved in a drill on the northern part of the claim group to test the extension of the mineralized zone discovered by United Keno Hill Mines Limited on the DEF group. In September the program was taken over by Asarco and a second drill added to the property. Drilling continued until mid-November and amounted to over 25,000 feet in 62 holes in addition to the 1971 and 1972 work. Drilling results for 1973 indicated 3.5 million tons of readily open-pittable ore grading 2.12 per cent copper (Silver Standard Mines Limited, Semi-Annual Report of 30 November, 1973). Drilling in 1974 will explore away from the known zone, and obtain additional data on the ore zone required for more accurate tonnage and grade calculations.

(29) BEN, PAL, KAP, NEB	Copper
Dawson Range Joint Venture	115 I 11
c/o Archer, Cathro and Associates	(62°37'N, 137°12'W)
Limited	
P.O. Box 4127	
Whitehorse, Yukon Territory	

References: Bostock (1936); Craig and Milner (1974)

Claims: PAL, KAP, BEN, NEB - total of 120 claims and fractions

Location and Access:

The claims are situated roughly two miles east of the copper discovery belonging to United Keno Hill Mines Limited and Asarco-Silver Standard Mines Limited, and adjoin the eastern boundary of the MINTO group originally staked by Silver Standard. Access in 1973 was by helicopter from the Minto airstrip 10 miles to the east or by fixed wing to the airstrip on the Silver Standard claims, roughly 1,000 feet west of the property. A tote road built during the winter of 1973-74 to the main copper discovery should make the property accessible by road in the 1974 season.

History:

The PAL claims were staked in September, 1971, by G. Wing and were sold soon afterward to the Dawson Range Joint Venture, a consortium consisting of Strauss Exploration Incorporated, BX Development Limited, Marietta Resources International Limited and Molybdenum Corporation of America, following the discovery of copper occurrences on the adjoining Silver Standard MINTO claims. Dawson Range Joint Venture added the BEN and KAP claims in October, 1971, and the NEB fractions in September, 1973. Geological mapping and soil sampling in 1972 outlined a copper anomaly on the west side of the property in an area of known malachite staining.



Description:

The property is underlain by only a few per cent of outcrop which consists mainly of biotite-hornblende granodiorite of Jurassic age or later (Unit 10, Bostock, 1936). The granodiorite is weakly foliated and porphyritic and locally cut by aplite and pegmatite up to 20 feet wide.

In the southwest corner of the property the granodiorite is overlain by a thin capping of Tertiary Carmacks Volcanics consisting of basalt, andesite, and porphyritic dacite (Unit 12, Bostock, 1936).

Copper occurs as chalcopyrite, bornite and chalcocite, with traces of pyrite and molybdenite in northwest-trending, gneissose zones of biotite-quartz-rich granodiorite. Some oxidation of the copper to malachite has occurred.

Current Work and Results:

Field work in 1973 consisted of electromagnetic and magnetic surveys and 7 bulldozer trenches on the west side of the property.

(30) FED

United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory

Copper  
115 I 11  
(62°35'N, 137°05'W)

Reference: Bostock (1936)

Claims: FED 1-228

Location and Access:

The FED group lies east of the DEF and MINTO claims, on the west side of the Yukon River roughly 7 miles west-north-west of the Minto airstrip. Access was by helicopter from the Minto airstrip in 1973. The DEF-Carmacks tote road crosses the northern end of the FED group.

History:

The claims were staked in July, 1973, following the copper discovery on the DEF and MINTO claims.

Description:

Although poorly exposed, the rocks underlying the claims consist mainly of medium-grained granitic rocks (Unit 10, Bostock, 1936) with syenitic and monzonitic phases on the eastern margin (Unit 9, Bostock, 1936). These rocks intrude Mount Nansen Group volcanics (Unit 7, Bostock, 1936) to the southeast and are in turn overlain by Carmacks Volcanics (Unit 12, Bostock, 1936) to the southwest. Malachite staining is present in fractures in granitic rocks, and chalcopyrite and bornite were noted in a



pegmatitic quartz vein in one locality.

Current Work and Results:

Field work in 1973 covered about half the claim group and consisted of reconnaissance geochemical and geological surveys. A number of minor occurrences of copper, mainly malachite stains, were noted. The remainder of the claims are to be covered with a similar program in 1974.

(31) ROD

Northair Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62°40'N, 137°09'W)

Reference: Bostock (1936)

Claims: ROD 1-32

Location and Access:

The property lies 9 miles west of the Minto airstrip and one mile southwest of the Yukon River. In 1973 the property was serviced by helicopter from the Minto airstrip.

History:

The claims were staked in August, 1972.

Description:

Most of the area is underlain by near-bedrock float consisting of a medium to coarse-grained biotite hornblende granodiorite of Jurassic age or later (Unit 10, Bostock, 1936) intruded by dykes of aplite or pegmatite. Minor limonite or hematitic stain was observed, but no sulphides were noted.

Current Work and Results:

Work in 1973 consisted of geological mapping and soil sampling. Geochemical sampling was conducted on a 400 foot grid; samples were analyzed for copper. Two areas of above threshold copper response were outlined and recommended for bulldozer trenching.

(32) DARK

Klondike Explorations Limited  
550 Burrard Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62° 34' N, 137° 13' W)

Reference: Bostock (1936)

Claims: DARK 1-40

Location and Access:

The DARK claim group is situated roughly 7 miles southwest of the Yukon River and 35 miles northwest of Carmacks. Access in 1973 was by helicopter from the Minto airstrip, about 10 miles to the east. During the winter of 1973-74 an access road was constructed from Carmacks to the Asarco and United Keno properties.

History:

The claims were staked in the spring of 1972 immediately south of the MINTO claims of Asarco-Silver Standard. No previous work on the property has been reported.

Description:

The DARK claims are apparently entirely underlain by Tertiary volcanics of the Carmacks Group (Unit 12, Bostock, 1936) which overlie the favourable granitic rocks in which copper mineralization occurs on the MINTO and DEF claims to the north.

Current Work and Results:

In October, 1973, a geochemical soil survey was carried out on the property and samples analyzed for copper. Although no significant anomalies were outlined, geological mapping and a ground magnetometer survey were recommended to outline possible areas where the Tertiary volcanics might be thin or absent.

(33)SUN

United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory

Copper

115 I 11  
(62°38'N, 137°12'W)

Reference: Bostock (1936)

Claims: SUN 1-24

Location and Access:

The claims are situated 50 miles northwest of Carmacks and approximately 4 miles west of the Yukon River at a point 13 miles downstream from the Minto airstrip. The property is on the eastern boundary of the DEF claims. Access in 1973 was by helicopter from the Minto airstrip. A tote road currently being built to service the DEF and MINTO properties will pass through the SUN claims.

History:

The claims were staked in September, 1971 following the staking of the MINTO and DEF groups and subsequently optioned to United Keno Hill Mines Limited. No previous work on the SUN claims is reported although some geochemical samples were taken by the original owners.

Description:

Similar to other properties in the area, the geology is represented by roughly one per cent outcrop. The principal rock type is a poorly foliated, biotite granite porphyry (Unit 10, Bostock, 1936) which is apparently cut by aplite and pegmatite dykes. Biotite is commonly altered to epidote in the porphyry. Foliation is fairly consistent, trending northwest and dipping nearly vertical. No mineral showings were noted.

Current Work and Results:

In addition to geological mapping, soil sampling was conducted on grid lines 300 feet apart, samples taken at 100 foot intervals and analyzed for copper. No significant anomalies were found.

(34) COMANCHE

Yukon Gold Placers Limited  
420 - 890 West Pender Street  
Vancouver, British Columbia  
and  
Pinnacle Mines Limited  
720 - 505 Burrard Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62°37'N, 137°19'W)

Reference: Bostock (1936)

Claims: COMANCHE 1-52

Location and Access:

The claim group is situated 16 miles west of the Minto airstrip and 8 miles southwest of the Yukon River. During the 1973 field season the property was reached by helicopter from the Minto airstrip.

History:

The claims were staked in the fall of 1971 and transferred to the present owners (50 per cent each) in the summer of 1972. Five bulldozer trenches were cut late in 1972.

Description:

Near-bedrock float indicates that most of the area is underlain by a medium - to coarse-grained biotite granodiorite of Jurassic age or older (Unit 10, Bostock, 1936). The granodiorite is generally well-foliated and is cut by aplite and pegmatite dykes. Andesite of the Carmacks Volcanics (Unit 12, Bostock, 1936) caps the intrusive to the southwest. Minor malachite staining was observed in one bulldozer trench.

Current Work and Results:

Geological and geochemical surveys were conducted on the claims in 1973. Soil sampling was done on a 400 foot by 400 foot grid; samples were analyzed for copper. Five areas of anomalous copper response were outlined and recommended for bulldozer trenching. Trenching was carried out in September but was unsuccessful in reaching bedrock. Ground magnetic and electromagnetic surveys conducted in October located a number of electromagnetic and magnetic anomalies coincident with the copper soil anomalies. Diamond drilling was recommended to test these coincident anomalies in 1974.

(35) COIN  
Taseko Mines Limited  
248 - 2nd Avenue  
Kamloops, British Columbia

Copper  
115 I 11  
(62°37'N, 137°05'W)

Reference: Bostock (1936)

Claims: COIN 1-24

Location and Access:

The COIN group of claims is situated roughly 1 1/2 miles west of the Yukon River about 7 miles downstream from Minto. The major copper discovery jointly held by United Keno Exploration and Silver Standard-Asarco is 5 miles to the west. During the 1973 field season the property was reached by helicopter from the Minto air strip.

History:

Copper minerals were discovered about the turn of the century and the original showing was staked as the HARDLUCK claims in 1902, at which time a short adit was driven. The ground was restaked in 1907 as the COPPER COIN group and subsequently allowed to lapse. The property remained dormant until it was restaked in 1970 as the COIN group. These claims lapsed in 1971 and were then restaked, with some additional claims, for the present owners. A 300 foot side-hill trench was cut in the area of the old showing in September, 1972.

Description:

The property lies southwest of the north-northwest trending Teslin lineament which underlies the Yukon River. To the east, andesites and basalts along with minor argillaceous sediments, all belonging to the Mount Nansen Volcanics (Unit 7, Bostock, 1936) underlie the property. To the west these rocks are intruded by Triassic (?) granitic intrusives (Unit 10, Bostock, 1936). The contact zone trends roughly north-northwest and is marked by syenitic and monzonitic phases. The volcanics are apparently amphibolitized locally along the contact.

Scattered bornite is exposed in epidote-rich bands in altered and sheared amphibolite, for a length of about 1,000 feet along a contact zone scarp.

Current Work and Results:

During the 1973 field season work consisted of a location line survey and preliminary geochemical sampling and geological mapping. Geochemical sampling consisted of soil sampling on two north-south location lines at 400 foot intervals and on several east-west traverses at 200 foot intervals. Anomalous copper in the soils was detected along the mineralized scarp and in two isolated areas to the west. A chip sample taken across 45 feet of the mineralized



amphibolite assayed 0.27 per cent copper, 0.06 ounces per ton silver and traces of gold. A grab sample from talus 550 feet south of the main zone of mineralization ran 1.8 per cent copper, trace molybdenum, 0.02 per cent  $WO_3$ , 0.32 ounces per ton silver and 0.08 ounces per ton gold.<sup>3</sup> Two grab samples from near the old adit assayed 6.77 per cent copper, 1.28 ounces per ton silver and less than 0.003 ounces per ton gold, and 4.40 per cent copper, 0.99 ounces per ton silver and 0.011 ounces per ton gold respectively. More detailed geological and geochemical surveys were recommended followed by a drilling program of 3,000 feet if the initial work proves encouraging.

(36) GORB

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Copper

115 I 11  
(62°33'N, 137°10'W)

Reference: Bostock (1936)

Claims: GORB 1-72

Location and Access:

The claims were staked in a single block straddling Dark Creek, about 10 miles west of the Minto airstrip from which they can be reached by helicopter.

History:

The property was staked in August, 1973, roughly 5 miles south of the copper discovery of United Keno Hill Mines and Asarco-Silver Standard. No previous work on the property has been reported.

Description:

The property is underlain by Carmacks Volcanics (Unit 12, Bostock, 1936) comprising basalt to trachyte flows, breccias and tuffs. These rocks form a thin capping over the Jurassic granite and granodiorite (Unit 10, Bostock, 1936) which host the copper mineralization to the north.

Current Work and Results:

Geological mapping and soil sampling were carried out on the property in 1973. No significant soil anomalies were reported, but one diamond drill hole was proposed to determine if the claims are underlain within reasonable depth by the foliated granodiorite which hosts copper occurrences in the area.

(37) WET  
Minto Mining Limited  
898 W. Hastings Street  
Vancouver, British Columbia

Copper  
115 I 7  
(62°18'N, 136°38'W)

Reference: Bostock (1936)

Claims: WET 1-33, 35-48

Location and Access:

The property is situated to the west of Merrice Lake, roughly 17 miles north-northwest of Carmacks. Access to the property in 1973 was by light aircraft to Merrice Lake.

History:

The claims were staked in June and September, 1971, southeast of the Williams Creek property.

Description:

The property is underlain by "granite, granodiorite and allied rock types" (Unit 10, Bostock, 1936) related to the Klotassin Batholith of Triassic(?) age. Copper occurrences on the Williams Creek property to the north-west are in zones of quartz-feldspar-biotite gneiss within the intrusive.

Current Work and Results:

A ground magnetic survey conducted in 1973 outlined two large areas of low magnetic intensity. Induced polarization surveys were recommended to test these anomalies.

#### ANVIL RANGE AREA

##### Rose Creek

(38) ANVIL MINE  
Anvil Mining Corporation Limited  
Box 1000  
Faro, Yukon Territory

Lead, Zinc, Silver  
105 K 2, 3, 6  
(62°21.5'N, 133°22'W)

References: Chisholm (1957, pp. 269-277); Roddick and Green (1961a); Green and Godwin (1964, pp. 31-32); Green (1965, pp. 36-37; 1966, pp. 47-50); Aho (1966, pp. 127-149); Roddick (1967); Findlay (1967, pp. 35-39; 1969a, pp. 43-45; 1969b, pp. 29-30); Tempelman-Kluit (1968, pp. 48-52; 1970); Craig and Laporte (1972, pp. 94-96); Brock (1973, pp. 97-116)

Claims: FARO, GAL, ED, SUN, RICH, DY, GALE, DEA, LEA, PEA, SB, DP, SEA, KAY, MOR, SINK - total of 1,965 claims.

### Location and Access:

The Anvil property is situated in the Anvil Range 143 miles northeast of Whitehorse. Ore concentrates are trucked in containers with a 30 ton capacity from the mine site to Whitehorse, a distance of 230 miles. At Whitehorse the containers are transferred to railroad cars and shipped to Skagway via the White Pass and Yukon Route.

### History:

The Faro deposit of the Anvil Mining Corporation was initially staked by Prospectors Airways in 1956 as the GAL claims, 12 miles northwest of the Vangorda lead-zinc deposit. In 1957 a coincident magnetic, electromagnetic and geochemical anomaly was located, but an attempt to test it with a packsack drill was unsuccessful and the claims were subsequently allowed to lapse.

In 1963, the Dickson-Yukon Syndicate staked several groups of claims in the area, including the ROSE claims which were located over the old GAL group. Little work was carried out on the claims and they were allowed to lapse in 1964. Dynasty Explorations Limited restaked the ROSE group as the FARO claims late in 1964.

In 1965, a program of airborne magnetometer and electromagnetic and gravity surveys, geochemical sampling and geological mapping outlined a number of coincident anomalies. Rotary drilling resulted in the discovery of the Faro No. 1 ore deposit in June. Late in 1965, Anvil Mining Corporation Limited was formed as a private company (Cyprus Mines Corporation 60 per cent, Dynasty Explorations 40 per cent) to develop the Faro deposit.

Exploration in 1966 consisted of 37,349 feet of diamond drilling in 56 holes to delineate the zone and 2,700 feet of underground drifting from which bulk samples were taken for milling and metallurgical testing. In late 1969, the mine was brought into production and the first concentrates were shipped to Japan.

### Description:

The rocks underlying the property consist of pelitic schists and calc-silicate phyllites believed to be Cambrian in age (Unit 2, Tempelman-Kluit, 1970). The ore occurs in the pelitic schist unit beneath the calc-silicate phyllite and consists of massive pyrite-pyrrhotite-sphalerite-galena assemblages in three zones along a 6,600 foot strike length. The main zone (Faro No. 1) is a northwest-striking, gently southwest-dipping lens 2,400 feet long and 1,200 feet wide. The orebody is tabular in longitudinal sections and lenticular in cross section. Massive sulphides subcrop locally below 60 feet of glacial debris and elsewhere occur below up to 500 feet of cap rock.

# Current Work and Results:

During 1973 production continued at a daily rate of 7,940 tons although this is expected to increase substantially in 1974. Exploration on the mine property consisted of electromagnetic and gravity surveys and 2,175 feet of diamond drilling in 4 holes. Operating results for 1973 and the two previous years are summarized as follows:

	<u>1973</u>	<u>1972</u>	<u>1971</u>
Tons Milled	2,899,124	3,060,168	2,673,000
Daily Rate (tons)	7,942	7,935	7,299
Mill Heads			
Lead (%)	11.7combined	4.6	4.9
Zinc (%)		6.2	6.9
Silver (oz/ton)		1	1
Ore Reserves	59,940,000	59,940,000	58,404,000

(39) KO	Lead, Zinc
Cream Silver Mines and	105 K 6
Belmoral Mines Limited	(62°20'N, 133°20'W)
107 - 325 Howe Street	
Vancouver, British Columbia	

References: Findlay (1967, pp. 40-41); Tempelman-Kluit (1972)

Claims: KO 1-36

## Location and Access:

The property is situated eleven miles northwest of Faro and two miles southeast of the Anvil Mine. Access is via an 11.5 mile tote road to the southwest corner of the property from the Faro road.

## History:

The property was first staked as the A and KEN claims by Tay River Mines following the discovery of the Faro deposit. Geochemical, geological and ground magnetic and electromagnetic surveys were carried out, but the results were not encouraging and claims were allowed to lapse in 1973 when they were restaked as the KO group.

## Description:

The underlying rocks consist of Precambrian and (?) Cambrian calc-silicate skarn, biotite schist and muscovite-chlorite, phyllitic schist (Unit 2, Tempelman-Kluit, 1972) intruded in the northern part of the property by quartz



monzonite and granodiorite of the Anvil Batholith (Unit 11, Tempelman-Kluit, 1972). Aside from minor pyrite and pyrrhotite, no significant mineral occurrences were located.

#### Current Work and Results:

Geological mapping carried out in 1973 indicated the sequence of rocks exposed on the property lies stratigraphically below the horizon containing the economic deposits of the area.

#### Blind Creek

(40)HOHO, BRAM	Lead, Zinc
Dynasty Explorations Limited	105 K 3
330 - 355 Burrard Street	(62°14'N, 133°02'W)
Vancouver 1, British Columbia	

Reference: Tempelman-Kluit (1972)

Claims: HOHO 1-8, 18-33, 36-43, BRAM 9-16

#### Location and Access:

The HOHO and BRAM claim groups lie along Blind Creek at a point 7 miles upstream from the Pelly River and 10 miles northeast of Faro. A 4 1/2 mile tote road suitable for tracked vehicles runs through the property along the northwest side of Blind Creek from the Vangorda Road. In 1973 access was normally by helicopter from Faro.

#### History:

The property was originally staked as part of the DY group in 1964, following airborne surveys which outlined a number of magnetic and electromagnetic anomalies within the area. The claims lapsed and were restaked as part of the LUK group in 1966. The LUK claims also lapsed and were restaked in 1971 by Dynasty as the HOHO-BRAM claims. In 1971 several showings consisting of sphalerite-galena occurrences in quartz veins and pyrrhotite-chalcopyrite occurrences in greenstone lenses were discovered in the course of detailed geological mapping. Soil sampling and ground geophysical surveys were also carried out in 1971.

#### Description:

The area is underlain by a sequence of Proterozoic and Paleozoic strata, mainly sericite-biotite schist and quartz phyllite (Unit 3, Tempelman-Kluit, 1972). To the northwest, the Anvil Batholith consists of muscovite alaskite bordered by biotite granodiorite.

On the property itself exposures are very poor except along Blind Creek where the sequence consists of quartz-rich, sericite-chlorite and limy phyllites. Greenstone lenses up to tens of feet thick and varying from amphibolite



to chlorite schist are present in the upper part of the section. Sphalerite and galena are present in quartz veins, and pyrrhotite and chalcopyrite showings occur in the greenstone lenses.

Current Work and Results:

Turam electromagnetic and ground magnetic surveys conducted in 1973 outlined a number of coincident anomalies. It was recommended that gravity surveys be carried out in these areas.

(41) FOTO	Lead, Zinc
Dynasty Explorations Limited	105 K 2, 7
330 - 355 Burrard Street	(62°15'N, 132°44'W)
Vancouver 1, British Columbia	

Reference: Tempelman-Kluit (1972)

Claims: FOTO 1-224

Location and Access:

The claims are situated in a single block approximately 20 miles northeast of Faro and 20 miles northwest of Ross River. The property is normally accessible via helicopter or float plane from Faro or Ross River. A tote road has also been completed from Faro to the property.

History:

The claims were staked in the spring of 1972.

Description:

The property is largely covered by overburden but is thought to be underlain by a sequence of Proterozoic and Paleozoic strata, comprised of muscovite quartz phyllite with some interbedded amphibolite (Unit 3, Tempelman-Kluit, 1972). This is the same unit which hosts the stratiform lead-zinc deposits of the Anvil area.

Current Work and Results:

Since the property was acquired the company has carried out gravimetric, Turam electromagnetic and magnetic surveys which outlined a number of geophysical anomalies. In 1973, 5 holes totalling 2,072 feet were completed. No significant intersections of massive sulphides were reported.

(42) JAN	Lead, Zinc, Copper
Ridgemont Mining Corporation	105 K 7
555 South Flower Street	(62°26'N, 132°52'W)
Los Angeles, California	
U.S.A. 90071	

Reference: G.S.C. Map 13-1961

Claims: JAN 1-110

Location and Access:

The property is situated in the Anvil Range 22 miles northeast of Faro. Access in 1973 was by helicopter from Faro or Ross River, 32 miles to the southeast.

History:

The claims were staked in March, 1973. No previous work on the property is reported.

Description:

The property is underlain by black, tuffaceous, cherty rocks associated with less abundant banded, white, siliceous pyroclastics (Unit 5b, G.S.C. Map 13-1961).

Current Work and Results:

Soil sampling in 1973 outlined a number of small, non-coincident lead and zinc anomalies and local weak copper anomalies. The anomalies are considered to be due to small lead and zinc veins of little or no economic interest. Recommendations for further work include extension of the soil sampling and detailed prospecting.

(43) LISA	Lead, Zinc, Copper
Ridgemont Mining Corporation	105 K 7
555 South Flower Street	(62°22'N, 132°50'W)
Los Angeles, California	
U.S.A. 90071	

References: Findlay (1967, p. 39); Tempelman-Kluit (1972)

Claims: LISA 1-28

Location and Access:

The property is situated 16 miles east of the Anvil Mine roughly 18 miles northeast of Faro. Access in 1973 was by helicopter from Ross River. Access is also possible by tracked vehicle from the Robert Campbell Highway via Blind Creek. An airstrip near the property can be used by light planes.

### History:

The property was initially staked in 1965 as the ACE group by Dynasty Explorations Limited following a regional aeromagnetic survey. In 1966, Dynasty conducted ground magnetic and electromagnetic surveys and soil sampling. The property was transferred to Anvil Mining Corporation Limited in 1966 and four holes were diamond drilled for a total of 1,966 feet. Traces of sulphides were reported from some of the holes. Ground magnetic and I.P. surveys were carried out in 1967 and two more holes diamond drilled.

The property was restaked as the MAG claims in 1971 by Spartan Explorations Limited in a joint venture with Preussag A.G. Metall, and a program of geological, magnetic, geochemical and I.P. surveys were carried out. The claims were allowed to lapse in 1972 and were restaked by Ridgmont Mining Corporation as the LISA claims.

### Description:

The property is underlain by "medium greenish-grey, lustrous, chlorite-muscovite-quartz-phylite, locally graphitic or calcareous" (Unit 3, Tempelman-Kluit, 1972). Foliation varies from northwesterly to northeasterly, dipping 40° to 60° north. Chalcopyrite and pyrrhotite have been reported from four closely-spaced localities in blocky, quartz-rich phyllite.

### Current Work and Results:

Geological mapping conducted in 1973 indicated that the southern two-thirds of the property was most favourable for further exploration and geochemical, magnetic and electromagnetic (Turam) surveys.

#### Anvil Creek

(44) ROTO, LORNA, GRAN, JEAN, ARO	Lead, Zinc
Dynasty Explorations Limited	105 K 5
330 - 355 Burrard Street	(62°25'N, 133°45'W)
Vancouver 1, British Columbia	

Reference: Tempelman-Kluit (1972)

Claims: ROTO 1-53, LORNA 1-60, GRAN 1-24, JEAN 1-28,  
ARO 1-40, 49-50.

### Location and Access:

The property is situated 7 miles northwest of Rose Mountain along Anvil Creek and can be reached by helicopter from the town of Faro, 18 miles to the southeast.

### History:

The claims were staked late in the summer of 1970, following airborne magnetic and electromagnetic surveys which outlined several anomalies. Preliminary regional geological mapping was done the same year together with silt and soil sampling and ground electromagnetic, magnetic and gravity surveys. A single 576 foot hole on the LORNA group was also drilled to test a geophysical anomaly. In 1971, detailed geological mapping was carried out on the property.

### Description:

The area is underlain by a succession of Proterozoic and Paleozoic strata dominated by quartz mica schist and phyllite (Tempelman-Kluit, 1972). These strata form the southwest limb of the Anvil arch, a northwest-trending antiform with the elongate Anvil Batholith in the core. The area has a complex structural history having undergone at least 5 deformations during regional metamorphism. Major faults trend northwest, parallel to the Tintina Trench system about 6 miles to the southwest.

Massive sulphides, mainly galena and sphalerite, with varying amounts of pyrite and pyrrhotite occur at a particular stratigraphic horizon in the phyllite and were apparently emplaced pre-metamorphism according to deformation fabrics in the sulphides.

The ROTO-GRAN-LORNA-JEAN-ARO claims are underlain by favourable phyllite (Unit 3, Tempelman-Kluit, 1972) although glacial overburden up to 200 feet thick obscures geologic interpretation and correlation.

### Current Work and Results:

Field work in 1973 consisted of a ground magnetometer survey and a Turam electromagnetic survey. The Turam survey outlined large areas of moderate to strong electromagnetic distortions but these were considered to be related to overburden, weathering or banded carbonaceous and graphitic horizons. No further work was proposed and some of the claims were allowed to lapse.

Swim Lakes

(45)BS

Kerr Addison Mines Limited  
405 - 1112 West Pender Street  
Vancouver, British Columbia

Lead, Zinc  
105 K 2  
(62°11'N, 132°54'W)

References: Green (1965, p. 36); Tempelman-Kluit (1972)

Claims: BS 19-24, 26, 27 (Fr.); SEA 5 (Fr.)

Location and Access:

The claims are located south of Swim Lakes approximately 15 miles east-southeast of Faro. The claims can be reached by a four-wheel drive road from Faro.

History:

The claims were staked in April, 1964, following an airborne magnetometer survey carried out by the company in late 1963. In 1964, magnetic, electromagnetic, self-potential, gravity and geochemical surveys were carried out on the property and two diamond drill holes totalling 572 feet were completed. The property remained idle until 1973 and a number of the original claims were allowed to lapse early in 1973.

Description:

The area is underlain by chlorite muscovite quartz phyllite, locally graphitic or calcareous, of Cambrian (?) or Ordovician (?) age (Unit 3, Tempelman-Kluit, 1972). The stratiform, massive pyrite-sphalerite-galena-pyrrhotite Swim deposit to the northwest occurs in the same stratigraphic sequence.

Current Work and Results:

In 1973, three diamond drill holes were completed totalling 1,502 feet. Narrow sections of pyrite and pyrrhotite with minor amounts of galena, sphalerite and chalcopyrite were encountered but these appeared to be lower in the stratigraphic sequence than the main deposit at Swim Lakes.



Tay River

(46) JON	Lead, Zinc, Copper
Ridgmont Mining Corporation	105 K 11
555 South Flower Street	(62°32'N, 133°12'W)
Los Angeles, California	
U.S.A. 90071	

Reference: Tempelman-Kluit (1972)

Location and Access:

The property lies 21 miles north of Faro in the Anvil Range and can be reached by helicopter from either Faro or Ross River, 48 miles to the southeast.

History:

The claims were staked in March, 1973. No previous work on the property is reported.

Description:

The property is underlain in the north by slate, limy slate, chert and minor pyroclastics (Unit 7, Tempelman-Kluit, 1972) of Upper Devonian and Mississippian age. The remainder of the property is underlain by intermediate to basic volcanics including possible carbonate exhalite facies (Unit 8b, Tempelman-Kluit, 1972).

Current Work and Results:

Soil sampling conducted in 1973 located small, patchy and non-coincident lead, zinc and copper anomalies. Recommendations for further work included further soil sampling plus detailed geological mapping.

(47) DANA	Lead, Zinc, Copper
Ridgmont Mining Corporation	105 K 11
555 South Flower Street	(62°35'N, 133°17'W)
Los Angeles, California	
U.S.A. 90071	

References: Findlay (1967, p. 39); Tempelman-Kluit (1972)

Claims: DANA 1-76

Location and Access:

The claims are situated 23 miles north of Faro and south of the Tay River. Access in 1973 was by helicopter from Faro.

### History:

The claims were initially staked as the IVAN group by Anvil Mining Corporation who drilled 4 diamond drill holes totalling 1,553 feet in 1966. The claims were subsequently restaked as the TER claims by Inter Tech Development and Resources Limited in 1969. The claims were allowed to lapse and in 1973 were staked by Ridgemont Mining Corporation as the DANA group.

### Description:

The property is underlain by Devonian and Mississippian slate, chert, greywacke, chert-pebble conglomerate and limestone (Unit 7, Tempelman-Kluit, 1972) which are overlain by siliceous banded tuffs (Unit 8, Tempelman-Kluit, 1972).

### Current Work and Results:

Soil sampling conducted in 1973 outlined a zone of coincident copper, lead and zinc anomalies. It was recommended that this area be checked in 1974 by geological, magnetic, electromagnetic and induced polarization surveys.

#### UPPER WHITE RIVER AREA

(48) MICRO, MAG (CANALASK)	Copper, Nickel
Nickel Syndicate	105 F 15, 16
709 - 1075 Melville Street	(61° 57'N, 140° 32'W)
Vancouver 5, British Columbia	

References: Campbell (1960); Muller (1958; 1967);  
Findlay (1967, pp. 13-16; 1969a, pp. 65-68).

Claims: MICRO 1-73; MAG 1-39

### Location and Access:

The property is situated on both sides of the White River approximately three miles south of Koidern. A 2.8 mile tote road at Mile 1167.5 of the Alaska Highway provides access to the property.

### History:

Copper-nickel showings in the area were first discovered and staked by Prospectors Airways Company Limited in 1952. In 1952 and 1953 about 5,300 feet of surface diamond drilling was completed. In 1954 the property was acquired by Canalask Nickel Mines Limited. Between 1954 and 1958 this company conducted 8,800 feet of surface drilling, 1,700 feet of underground drifting and 1,500 feet of underground drilling, and reported reserves of 550,000 tons of 1.68 per cent nickel. In 1958 work on the property was suspended, and the claims were allowed to lapse in 1964, at which time they were restaked by P. Verslucce and Associates

along with additional claims on the west bank of the river. In 1966 P. Verslucce and Associates did some blasting and bulldozer trenching and uncovered several new mineralized zones. These were further investigated in 1967 and 1968 by Discovery Mines Limited under option from P. Verslucce and Associates. The option agreement was terminated in 1968. Work on the property was resumed in 1972 by a syndicate headed by J.S. Vincent Limited under an option agreement with P. Verslucce and Associates. Field work in 1972 consisted of detailed magnetometer and E.M. (horizontal loop, vertical loop and shootback) surveys and detailed geological mapping. The MAG claims were staked in May 1973 adjacent to the MICRO claims on the east side of the White River.

#### Description:

The area is underlain by volcanics and sediments of the Lower Permian and (?) earlier Cache Creek Group (Units 10 and 11, Muller, 1967). Intruded into this sequence is a steeply north dipping ultramafic body of Permian and/or Triassic age approximately 600 feet thick (Unit 12, Muller, 1967), which grades from a gabbro at its footwall contact to a serpentinitized peridotite at the hanging wall contact. Irregular disseminations and some massive lenses of pyrrhotite, chalcopyrite and pentlandite with sphalerite, pyrite and marcasite occur in a sequence of fine-grained altered volcanics about 400 feet north of the ultramafic contact. The volcanics are siliceous and in places finely laminated suggesting a tuffaceous origin. Disseminated pyrrhotite is also present in a gabbroic phase near the hanging wall contact in the ultramafic intrusive.

#### Current Work and Results:

In 1973, five diamond drill holes, totalling about 2,000 feet, were drilled to test magnetic anomalies related to the peridotite.

Canyon City

(49) NUK, MARK, GOLDEN HORNE	Copper
Silver City Mines Limited	115 F 15
580 Howe Street,	(61°47'N, 140°47.5'W
Vancouver, British Columbia	

References: Findlay (1967, pp. 51-52; 1969a, pp. 68-70; 1969b, pp. 40-41); Craig and Laporte (1972, pp. 98-100).

Claims: NUK, MARC, GOLDEN HORNE, SLAGGARD and HANNA groups for a total of 224 claims.

Location and Access:

The property lies on the east side of the Upper White River some 18 miles south of Mile 1168 on the Alaska Highway. Heavy equipment is brought in to the property during the winter by a 20 mile tote road from the Alaska Highway. During the 1973 season the camp was normally serviced by float-equipped aircraft from Whitehorse landing in Rifle Lake, a small lake roughly three-quarters of a mile south of the main showing.

History:

Native copper and chalcocite, with minor chalcopyrite, have been known in the vicinity since the turn of the century. The property includes the original Discovery Copper Grant, first staked in 1905. The early workings consisted of three short adits which resulted in the discovery of several large slabs of copper, one of which is now on display in front of the MacBride Museum in Whitehorse. In 1967 Silver City Mines Limited made a new discovery during bulldozer trenching near the old workings. A private company, United Pemetex Limited, formed by Silver City Mines Limited and Central Del Rio Oils Limited did 2,600 feet of diamond drilling and conducted ground magnetometer and I.P. surveys in 1968. At this point, Central Del Rio Oils Limited terminated its option agreement and sole ownership of the property reverted to Silver City Mines Limited.

In 1969, Silver City Mines Limited completed 10,000 feet of diamond drilling on the 1969 I.P. anomalies and conducted a further I.P. survey on the property. In 1970, the property was explored by 1,124 feet of underground workings, collared at the 2,900 foot elevation level. The underground workings were further explored by 2,900 feet of underground drilling in 1972.

Description:

The property is underlain by volcanic and sedimentary rocks of the Permian and (?) earlier Cache Creek Group (Units 10 and 11, Muller, 1967) and the Triassic Mush Lake Group (Unit 13, op. cit.). To the east, the area is cut by the major, west-dipping thrust fault, the Generc-Tchawsahmon

which forms a prominent scarp on Slaggard Ridge. Another fault, trending slightly west of north along the White River, appears to separate Mush Lake Volcanics on the east bank from Cache Creek strata on the west.

Mineralization occurs in the fractured, dark green, locally amygdaloidal Mush Lake basalt, primarily as irregular stringers and lenses of native copper, steely chalcocite and minor bornite, with occasional large masses of native copper.

The 1967 discovery zone is 35 feet wide and appears to be in a fracture zone trending N 20°E and dipping nearly vertically. Published assays are 0.76 per cent copper for the eastern 9 feet and 3.53 per cent copper and 0.2 ounces per ton silver for the western 30 feet (Northern Miner, January 11, 1968). Late in 1968, a drill hole 720 feet north of this showing intersected 56 feet (true width 42 feet) of 2.55 per cent copper (Northern Miner, December 29, 1968). The 1969 drilling encountered intersections of up to 6.8 per cent copper over 5.5 feet but distribution appears to be erratic and no continuous copper zones were found. There was no consistent correlation between copper mineralization and I.P. anomalies although some known mineralized zones were found to correspond with a high chargeability response.

The 1970 underground workings were almost entirely within porphyritic to amygdaloidal andesites or basalts, locally sheared and chloritized and varying from purplish to green in colour. Minor faults are numerous and the structure is complex. Several significantly mineralized sections were encountered but these appear to be erratic. In general, the best mineralized zones appear to be in chloritized shear zones in the amygdaloidal andesites or basalts. The underground drilling in 1972 confirmed the erratic distribution of the copper mineralization.

#### Current Work and Results:

Work in 1973 consisted of driving an adit on the 2,800 foot level, designed to intersect high grade mineralization found in the 2,900 foot level workings. Equipment problems delayed work and a total of 407 feet had been driven when work was curtailed due to freeze-up. Some thin stringers of chalcocite were observed near the present face of the drift.



KLUANE AREA

Quill Creek - Kluane Area

(50)WELLGREEN MINE	Nickel, Copper
Hudson-Yukon Mining Co. Limited	115 G 5
Post Office Box 28	(61°28'N, 139°32'W)
Toronto Dominion Centre	
Toronto, Ontario	
M5K 1B8	

References: Campbell (1960); Muller (1958; 1967);  
Findlay (1967, pp. 52-53; 1969b, p. 43);  
Craig and Laporte (1972, pp. 100-101).

Claims: 91 claims

Location and Access:

The mine is situated near the head of Nickel Creek in the Kluane Range west of Burwash Flats. Access is by a 9 mile road which follows the Quill Creek Valley from Mile 1111 of the Alaska Highway.

History:

Massive sulphides were discovered in 1952 in a steep gully above Nickel Creek by prospectors W.B. Green and C.A. Aird. The property, optioned by Hudson Bay Exploration and Development Company Limited is held through a subsidiary, Hudson-Yukon Mining Company Limited. From 1953 to 1956 the property was explored by 14,000 feet of underground workings and 65,000 feet of surface and underground drilling which outlined 738,000 tons of 2.04 per cent nickel, 1.42 per cent copper and minor amounts of cobalt, platinum and palladium. From 1956 to 1968 the property was inactive. Several anomalous areas were outlined by ground geophysics in 1968 and 2,500 feet of diamond drilling was completed in 1969. Production plans were announced in 1970 and production began in May, 1972.

Description:

The property is underlain by Lower Permian volcanics and sediments (Units 10 and 11, Muller, 1967) intruded by Permian or Triassic peridotite (Unit 12, Muller, 1967). The Lower Permian rocks, mainly argillite and altered basic lava form an overturned anticline trending northwest cut by two dyke-like bodies of peridotite striking east and dipping steeply south. The ultramafic body with which the deposit is associated is 200 to 300 feet thick and consists mainly of serpentinized peridotite and feldspathic peridotite with a footwall zone of altered, anorthositic gabbro or diorite. Massive to heavily disseminated pyrrhotite, chalcopyrite, pentlandite and violarite occur as lenses within the foot-wall zone and within a bordering hornfels zone. The ore shoots, typically thin and irregular, are roughly parallel to the ultramafic-gabbro contact.

Current Work and Results:

Production started in May 1972, at a rate of 360 tons per day. In August 1973 the mine closed after roughly a year and a half of operation due to lack of continuity in the ore body and bad ground conditions. Concentrates were shipped by road to Haines, Alaska.

Operating summary for 1972 and 1973 is as follows:

	<u>1973</u>	<u>1972</u>
Tons Milled	76,760	112,451
Rate (tons/day)	420	356
Grade		
Nickel (%)	2.49	2.05
Copper (%)	1.45	1.35
Platinum metals (oz/ton)	0.065	0.065
Cobalt (%)	0.073	0.073
Reserves	not available	not available

Tetamagouche Creek

(51)MARY	Copper, Nickel
Alice Lake Mines Limited	115 G 6
306 - 736 Granville Street	(61°23'N, 139°18'W)
Vancouver 1, British Columbia	

References: Muller (1967); Findlay (1969b, pp. 72-73);  
Craig and Laporte (1972, p. 102).

Claims: MARY 1-24

Location and Access:

The property is situated at the mouth of Tetamagouche Creek approximately 6 miles southwest of Burwash Flats. Access is by four-wheel drive on a tote road leaving the Alaska Highway at Mile 1104.

History:

The claims were originally staked in the 1950's and explored by three short diamond drill holes although very little is known of this work. The property was acquired by the present owners as the GLEN group in 1967 and a program of ground magnetometer and electromagnetic surveys and geological mapping carried out. Two diamond drill holes totalling 717 feet were completed in 1967. Only traces of

copper and nickel sulphides were found and the claims were subsequently allowed to lapse. The property was recently restaked by the same company, this time as the MARY group.

Description:

The claims are underlain by sediments and volcanics of the Cache Creek Group (Unit 11, Muller, 1967). The sediments and volcanics trend generally N 60° W, dipping 50°-60° southwest and are intruded by latite porphyry (Unit 23a, Muller, 1967) and gabbro and peridotite (Unit 12, Muller, 1967). A gossan zone with scattered stringers of pyrrhotite, chalcopyrite and pentlandite is exposed in the canyon walls of Tetamagouche Creek at the contact of the gabbros and peridotites and Cache Creek Group sediments and volcanics.

Current Work and Results:

In October 1972 a limited soil sampling program was carried out along with some grab sampling of the gossan zone. The soil sampling outlined a copper and nickel anomaly up to 1,400 feet long. Grab samples ran as high as 0.58% Cu and 0.13% Ni. Recommendations for further work included additional mapping and sampling, bulldozer trenching and percussion drilling.

Nines Creek

(52) SPY	Copper, Nickel
J.S. Vincent Limited	115 G 2
309 - 1075 Melville Street	(61° 09'N, 138° 45'W)
Vancouver 5, British Columbia	

Reference: Muller (1967)

Claims: SPY 1-12

Location and Access:

The claim group is situated on the south side of Nines Creek, 4 miles west of Mile 1077 on the Alaska Highway and 6 miles south of Destruction Bay. In 1973 the property was serviced by helicopter from Haines Junction.

History:

The claims were staked in July 1972, and subsequently transferred to the present owner. Preliminary geology and geochemistry surveys were conducted in 1972.

### Description:

The area is underlain by Cache Creek Volcanics (Unit 10, Muller, 1967) and later sediments and tuffs of Permian to Permo-Triassic age (Unit 13, Muller, 1967). These have been intruded by Early Triassic gabbro, peridotite and diorite (Unit 12, Muller, 1967). Folding and faulting has occurred on a northwest trend; dips are generally to the southwest. Significant amounts of copper and nickel bearing sulphides occur as disseminations and blebs at the base of the main gabbro-peridotite intrusive. Sulphides with trace nickel and copper also occur as isolated pods and replacements in fracture fillings in limestone.

### Current Work and Results:

Field work in 1973 consisted of detailed geological mapping. Additional geochemical and geological surveys have been recommended for the property.

#### RUBY RANGE AREA

##### Kluane River

(53)CAM, RUBY, TIN	Asbestos
Asarco Exploration Limited	115 G 11
504 - 535 Thurlow Street	(61°41'N, 139°20'W)
Vancouver, British Columbia	
V6E 3L2	

Reference: Craig and Laporte (1972, p. 104)

Claims: CAM 1-4; RUBY 1-12; TIN 1-20

### Location and Access:

The property lies approximately 1 mile east of the Kluane River, 8 miles north of Mile 1118 on the Alaska Highway and 25 miles northwest of Burwash Landing. Access in 1973 was by helicopter from Haines Junction, 90 miles to the south-east.

### History:

The property was staked in 1953 and examined by North-western Explorations in 1954 but subsequently allowed to lapse. T.L. Sadlier-Brown and E.O. Chisholm restaked the ground in 1968 and optioned it to Arrow Inter-America Corporation. In 1969, this company carried out geological mapping, geochemical and geophysical surveys and test pitting. The asbestos discovered was typically short fibre from 1/16 to 1/8 inch long and formed roughly 3 per cent of the rock. The best showing, occurring in a moderately to highly serpentinized zone 50 feet wide, contained 7 to 8 per cent fibre up to 1/2 inch long but averaging only 1/8 inch. After this work the claims were returned to the

owners who subsequently restaked part of the original group as the RUBY and TIN claims and optioned them to Asarco along with some of the original CAM claims.

Description:

The property is in a small swampy valley between Tincup Lake and the Kluane River. The rocks underlying the property consist of Yukon Group metasediments, mainly slate, quartzite, schist and recrystallized limestone (Unit 3, Muller, 1967) striking east and dipping 40°-50° to the south. The metasediments are intruded by a concordant ultrabasic sill 15,000 feet long and 4,000 to 5,000 feet thick. The sill has a base of peridotite which is succeeded upward by pyroxenite and then gabbroic rocks. There are apparent repetitions of this sequence within the sill.

Current Work and Results:

In 1973 the company carried out a general reconnaissance magnetometer survey and drilled 4 holes totalling 1,001 feet. The claims were subsequently returned to the owners.

NISLING RANGE

Aishihik Lake

(54) HATCH, THATCH	Molybdenum, Copper,
Canadian Occidental Petroleum	Zinc
Limited	115 H 12
Minerals Division	(61°35'N, 137°38'W)
801 - 161 Eglinton Avenue East	
Toronto, Ontario	
M4P 1J5	

Reference: Tempelman-Kluit (1973)

Claims: HATCH 1-36; THATCH 1-8, 15-22, 29-36

Location and Access:

The two claim groups form a contiguous block situated 5 miles southwest of Aishihik Village west of Aishihik Lake. The property can be reached by helicopter from the village.

History:

The THATCH claims were staked in 1971 to cover copper, zinc and molybdenum anomalies discovered in a reconnaissance geochemistry program. Subsequent detailed soil sampling revealed an extensive molybdenum anomaly on the southern half of the claim group. The HATCH claims were staked to the southeast of the THATCH claims in October, 1972, to cover the extension of this anomaly.



Description:

Due to glaciation and extensive cover by morainal deposits outcrops in the area are sparse. Most exposures are of the Yukon Group of rocks consisting of micaceous quartzite, marble and locally, quartz-mica schist. These rocks have been intruded by Nisling Range alaskite of Eocene age (Tempelman-Kluit, 1973) represented only by angular boulders of porphyritic quartz monzonite near the south-eastern corner of the THATCH group.

Minor pyrite and pyrrhotite is disseminated locally in micaceous quartzite. No significant mineralization was observed in the intrusive rocks.

Current Work and Results:

Soil geochemistry conducted over the HATCH claims in 1973 outlined a significant extension to the anomalous molybdenum zone on the THATCH claims.

A ground magnetic survey over both claim groups outlined magnetic anomalies over the areas high in molybdenum and suggests a magnetic horizon in the micaceous quartzite close to the quartz monzonite intrusive. Anomalous molybdenum values occur over an area tentatively mapped as intrusive and an I.P. survey was recommended for this area.

(55)ASH	Copper
Canadian Occidental Petroleum	115 H 3
Limited	(61°13'N, 137°04'W)
Minerals Division	
801 - 161 Eglinton Avenue East	
Toronto, Ontario	
M4P 1J5	

Reference: Tempelman-Kluit (1973)

Claims: ASH 1-36

Location and Access:

The claims are situated four miles west of the south end of Aishihik Lake, approximately 76 miles northwest of Whitehorse. In 1973 the property was serviced by helicopter from the Aishihik Lake campground at the south end of Aishihik Lake or from Haines Junction.

History:

The claims were staked for the present owners in October, 1972, following reconnaissance geochemistry conducted in 1971. No other work on the claims is known.

Description:

The southern part of the property is underlain by Yukon Group rocks consisting of alternating bands of marble, mica schist and hornblende gneiss that generally strike southeast. In the northern part of the claims, these have been intruded by porphyritic granodiorite, correlated with the Ruby Range granodiorite of Triassic age (Tempelman-Kluit, 1973). The granodiorites themselves are intruded by fine-grained diorite and possibly a mafic dyke.

The banded rocks of the Yukon Group are cut by northwest-trending shear zones and both the Yukon Group and granodiorites are cut by northeast-trending shears. Rocks associated with the shear zones are commonly chloritized. Skarn zones occur locally near intrusive contacts and around shear zones.

Minor chalcopyrite and pyrrhotite occurrences were found along some of the northeast-trending shears in hornblende gneiss.

Current Work and Results:

Soil geochemistry conducted on the property revealed a number of anomalies, some, if not all, of which appeared related to structural features. More detailed geological and geochemical surveys were recommended, as well as a magnetic survey over the southern portion of the claims which appears to be underlain by a regional aeromagnetic high.

Talbot Creek

(56) BIR, RIB	Copper, Molybdenum
Canadian Occidental Petroleum	115 G 9
Limited	(61°40'N, 138°20'W)
Minerals Division	
801 - 161 Eglinton Avenue East	
Toronto, Ontario	
M4P 1J5	

Reference: Muller (1967)

Claims: BIR 1-10, 19-26, 37-46, 55-62, 74, 76, 78, 80;  
RIB 1-18

Location and Access:

The two claim groups form a continuous block situated north of Talbot Creek and 32.5 miles northeast of Burwash Landing. Access in 1973 was by helicopter from Burwash Landing.

### History:

The BIR claims were staked in 1971 following a reconnaissance stream sediment survey, and subsequent detailed geochemistry revealed a number of molybdenum anomalies. The RIB claims were staked in October 1972 to cover the southern extension of a mineralized zone on the southeastern corner of the BIR claims.

### Description:

The oldest rocks exposed on the property are banded quartzites of the Yukon Group (Unit 1, Muller, 1967). The quartzites, commonly mafic-rich locally contain up to 20 per cent disseminated pyrite and some pyrrhotite. The quartzites are intruded by Nisling Range alaskite (Unit 7, Muller, 1967) which underlies most of the property and which has been divided into three phases based mainly on grain size texture. Fine-grained and medium to coarse-grained granites are the most abundant varieties and are leucocratic rocks composed mainly of quartz and feldspar with only minor amounts of mafic materials. The third variety is fine to medium-grained granite with a serrate texture and is characterized by local fracturing and argillic alteration.

The alaskite is cut by later intrusions of mafic dykes, diorite and breccia composed of quartzite fragments in a granite matrix.

Topographic lineaments strike northeast and northwest; the mafic dikes strike north, suggesting a third direction of structural control.

Minor molybdenite was found associated with watery quartz stringers in the fractures in the serratic granite.

### Current Work and Results:

Soil geochemistry on the RIB claims in 1973 outlined a molybdenum anomaly and a copper-zinc anomaly, both extensions of known anomalies on the BIR group. Rock geochemistry in the area of the molybdenum soil anomaly showed anomalous values for molybdenum, but no significant values for fluorine, tin or tungsten were coincident with the molybdenum values. The copper-zinc anomaly was found to correspond with local minor occurrences of copper and zinc sulphides in the quartzites.

The results of a ground magnetometer survey over both the BIR and RIB claims did not outline any significant anomalies; the areas of known molybdenum mineralization were underlain by negative magnetic anomalies.

It was recommended that further work include an I.P. survey over the molybdenum anomaly.

DEZADEASH AREA

Tatshenshini River

(57) LILL, TATS, RUM, STE, HILL	Copper
Jackpot Copper Mines Limited	115 A 3
R.R. 1 - 7593 Lark Street	(60°03'N, 137°07'W)
Mission City, British Columbia	

References: Kindle (1953); Findlay (1969b, pp. 43-44);  
Craig and Laporte (1972, p. 108)

Claims: LILL, TATS, RUM, STE, HILL groups, 206 claims total.

Location and Access:

The property is situated 6 miles southwest of Dalton Post and 3 miles north of the Yukon-British Columbia border. Access is from Mile 105 on the Haines cut-off road west to Dalton Post and then by a 6 mile tote road to the property. The tote road crosses the Tatshenshini River which can be forded only during low water.

History:

The property was staked in 1965 and acquired by Jackpot Copper Mines Limited in 1967. Electromagnetic, magnetic and geochemical surveys were conducted in 1967 and the subsequent trenching exposed copper minerals for a strike length of 90 feet. Further trenching in 1969 and diamond drilling in 1970 indicated a mineralized zone along a strike length of at least 600 feet and from 2 to 7 feet thick.

Description:

Disseminated and massive chalcopyrite in quartz-breccia filling occur in a rusty shear zone which trends slightly west of north, dips steeply east and lies along the contact of a fine to medium-grained granitic intrusive (Unit 7a, Kindle, 1953) to the east, and fine-grained, schistose andesite or basalt to the west (Mush Lake Group, Unit 3, Kindle, 1953; Findlay, 1969b). Malachite and azurite stains are abundant.

Current Work and Results:

During the summer of 1973, an IP survey was conducted on the property. Later, the company drilled 4 holes, totalling 1,200 feet, to test the I.P. results.

Quill Creek - Haines Junction

(58) REX

Asarco Explorations Limited  
504 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L2

Asbestos  
115 A 11, 14  
(60°44'N, 137°17'W)

References: Kindle (1953, pp. 57-58); Skinner (1961, pp. 28-30; 1962, pp. 27-29); Green and Godwin (1963, pp. 24-25; 1964, pp. 29-30); Findlay (1967, pp. 55-56); Craig and Laporte (1972, p. 109)

Claims: REX 1-6, 12-19, 31-40; ASBESTOS 1-2, 5, 13-16;  
GINA 3, 5, 7; HAWK 1-16.

Location and Access:

The claims are situated on the west side of Kathleen River, some 7 miles east of Haines Junction. The property is easily reached by a 7 mile tote road which leaves the Haines cut-off road at Mile 152, north of Quill Creek.

History:

Asbestos was first discovered in 1953 and since then the property has been investigated by a number of companies including Noble and Associates (1957, 1958), Canex Aerial Explorations Limited (1959), Nicolet Asbestos Corporation (1960), Cominco (1963) and Golden Gate Explorations Limited (1966, 1969). Drilling by Cominco in 1963 was hampered by deep overburden. In 1969 Golden Gate completed 1,200 feet of drilling which involved coring of only the first 10 feet of bedrock below glacial till and lake sediments. Results of the drilling to 1969 indicate the presence of a zone carrying roughly 2 per cent fibre over a distance of 210 feet. In 1973, 34 claims of the original REX property were optioned from Golden Gate Explorations Limited by Asarco, who also staked the HAWK claims.

Description:

Although very poorly exposed in outcrop, the underlying rock is a fine to medium-grained, partly serpentized dunite (Unit 5, Kindle, 1953). Where exposed in a pit blasted in bedrock, the asbestos occurs as cross-fibre in scattered veins and ranges from 1/4 inch to 1/2 inch in length.

Current Work and Results:

Diamond drilling by Asarco in 1973 amounted to 2,016 feet in 8 holes.



## WHITEHORSE AREA

### Whitehorse Copper Belt

(59) WHITEHORSE COPPER MINES LIMITED	Copper, Silver, Gold
1695 - 555 Burrard Street	105 D 10, 11
Vancouver, British Columbia	(60°33'N to 60°45'N 134°53'W to 135°10'W)

References: Kindle (1964); Green (1965, pp. 40-41, 1966 pp. 50-51); Green and Godwin (1964, pp. 33-39); Findlay (1967, pp. 41-43; 1969, pp. 49-54); Hilker (1967); Craig and Laporte (1972, pp. 110-111).

Claims: 677 claims in the Whitehorse Copper Belt

#### Location and Access:

The properties of Whitehorse Copper Mines Limited are in a north to north-west trending belt up to 4 miles wide and 20 miles long lying west of the City of Whitehorse. Concentrates are shipped by rail to Skagway.

#### History:

Copper occurrences were first noted in 1897 by miners enroute to the Klondike gold fields and most of the presently known showings were staked in 1898 and 1899. Some hand-picked ore was shipped in the period 1900 to 1909 and some development and production took place from 1915 to 1920, a period of high copper prices. Diamond drilling was carried out in 1927 by Richmond Yukon Company Limited and in 1947 and 1948 by Noranda Mines Limited.

Imperial Mines and Metals Limited acquired claims in the Copper Belt in 1955 and commenced drilling on the Best Chance prospect in 1956. Renamed New Imperial Mines Limited in 1957, the company re-commenced drilling in 1963 and by 1964 had outlined 4.6 million tons of ore grading 1.17 per cent copper with minor gold and silver values. Starting in 1966, there has been production from six open pits; the Little Chief, Arctic Chief, (East and West Pits), Black Cub, South Keewenaw and War Eagle.

Exploration during this period indicated 822,000 tons of material on the Gem prospect grading one per cent copper and roughly 2.7 million tons of 2.38 per cent copper beneath the Little Chief and Middle Chief pits.

In June, 1971, production was suspended due to low metal prices and high mining costs. Production was resumed in December, 1972, from underground mining of the Little Chief ore body. The name of the company was changed from New Imperial Mines Limited to Whitehorse Copper Mines Limited in September, 1971.

### Description:

Most of the copper occurrences of the Whitehorse Copper Belt are classed as contact metamorphic skarn deposits. They occur typically as irregular patches and lenses in skarn developed in Triassic Lewes River limestone (Unit 3c, Wheeler, 1961) adjacent to granite to granodiorite of the Coast Range Intrusions (Unit 8, Wheeler, 1961). The skarn consists of varying amounts of diopside, epidote, tremolite-actinolite, garnet, serpentine, magnetite and/or hematite, and rarely, asbestos. Chalcopyrite and bornite are the main ore minerals with minor chalcocite and native copper. Valleriite is locally abundant but because of its physical properties recovery is poor.

### Current Work and Results:

Production in 1973 at a rate of 1,900 tons per day was entirely from the Little Chief underground orebody. Underground development of the Middle Chief orebody began in 1973 with production scheduled for late 1974.

Surface exploration on properties in the Whitehorse Copper Belt by Whitehorse Copper Mines Limited included geochemical and geophysical surveys, geological mapping and diamond drilling. On the WE claims geological mapping was conducted in addition to ground magnetic and induced polarization surveys. Several anomalies were outlined by the induced polarization survey.

On the GENO claims, geological mapping and a ground magnetic survey were completed in 1973. This property is underlain by limestone and quartzite of the Lewes River Group which is intruded by diorite of the Coast Range Intrusive Complex on the west side of the property.

In the Middle Chief area two diamond drill holes on the northward extension of the Middle Chief ore zone intersected widespread low-grade mineralization. Three deep holes drilled below Cowley Park deposit intersected low-grade copper and some associated molybdenum. One hole was completed on the footwall (north) side of the Black Cub South pit and encountered minor disseminated copper mineralization. In December 1973, a deep hole designed to test limestone at depth north of the old Valerie workings was stopped at 2,000 feet in quartzite after passing through a thick bed of limestone exposed at surface in the area. The hole was scheduled for completion early in 1974.

The change-over from surface to underground mining and the suspension of production from June, 1971, to December, 1972, are reflected in the following operating summary for 1971, 1972 and 1973:

	<u>1973</u>	<u>1972</u>	<u>1971</u>
Tons Milled	700,054	10,707	337,758
Rate (tons/day)	1,919		
Grade (% copper)	1.83	1.92	1.02

(60) PUEBLO, GRAFTER  
Hudson Bay Exploration  
and Development Co. Ltd.  
Whitehorse, Yukon Territory

Copper  
105 D 11, 14  
Whitehorse Copper Belt  
PUEBLO: (60°43'N, 135°11'W)  
GRAFTER: (60°40'N, 135°08'W)

References: McConnell (1909, pp. 38, 44); MacLean (1914, pp. 160, 163); Cockfield (1928, pp. 14-18); Wheeler (1961, pp. 138-139); Kindle (1964, pp. 25-26, 30-32).

Claims: PUEBLO, GRAFTER

Location and Access:

The claims are in two separate blocks in the northern part of the Whitehorse Copper Belt and can be reached by the Whitehorse Copper Mines haulage road, to which there is access from several points on the Alaska Highway.

History:

The PUEBLO and GRAFTER claims were among those originally staked during the period 1898 to 1899 at which time almost all of the presently known showings were staked. There has been some production from the PUEBLO, but this ceased in 1917 after a disastrous mine cave-in. The above company is presently exploring these claims under an option agreement with Whitehorse Copper Mines Limited.

Description:

The deposits of the Whitehorse Copper Belt occur as irregular lenses and patches in silicate and calc-silicate skarns. These skarns are developed mainly at the contact of limestones of the Lewes River Group (Unit 3c, Wheeler, 1961) and granodiorite and diorite of the Coast Range Batholith (Unit 8, Wheeler, 1961). Bornite and chalcopyrite are the main ore minerals.

### Current Work and Results:

Field work in 1973 consisted of a detailed ground magnetometer survey over the claims. Fifteen diamond drill holes totalling 10,425 feet were drilled; no significant inter-sections were reported.

### WHEATON RIVER AREA

#### Macauley Creek

(61)WHEATON PROJECT	Gold, Silver
Jorex Limited	105 D 3
600 - 85 Richmond Street West	(60°01'N, 135°18'W)
Toronto, Ontario	
M5H 2E8	
and	
Dome Exploration (Canada) Limited	
600 - 365 Bay Street	
Toronto 1, Ontario	

References: Wheeler (1961); Lambert (1969).

Claims: RIDGE 1-30

#### Location and Access:

The claims lie on the southeast side of Macauley Creek, 25 miles southwest of Carcross and 7 miles southwest of the west arm of Bennett Lake. In 1973 access to the property was by helicopter from Whitehorse, a distance of approximately 48 miles. The area is extremely rugged and the services of a professional mountain climber were employed for the 1973 field work.

#### History:

Silver and gold-bearing float was discovered in 1972 in the course of prospecting a relatively unexplored ring dyke complex. Fourteen claims were staked in 1972 and an additional 16 in 1973.

#### Description:

The property lies within an area of cauldron subsidence on the eastern edge of the Coast Crystalline Complex (Lambert, 1969). The cauldron subsidence was accompanied by explosive volcanism and rapid sedimentation that produced great thicknesses of tuffs, breccias, ignimbrites and conglomerates (Unit 10, Wheeler, 1961). The claims themselves are underlain by a grey volcanic sequence of tuffaceous formations which are intruded by a white, rusty-weathering felsite.

Sulphides are present in two separate, north-trending, steeply-dipping vein systems. The Macauley Creek East prospect is up to 300 feet wide and 800 feet long and is



composed of sub-parallel mineral zones separated by 100 feet of fractured and unmineralized volcanic material. Pyrite, arsenopyrite and some galena occur within silicified zones but distribution is erratic. The Macauley Creek West prospect is a zone of sub-parallel veins up to 1,400 feet in strike length which contains narrow veins of arsenopyrite in altered volcanic rocks.

#### Current Work and Results:

Field work in 1973 consisted of hand trenching and detailed geological mapping. Gold and silver assay values were obtained in the Macauley Creek East prospect but none in the Macauley Creek West prospect.

### LAKE LABERGE - TESLIN RIVER AREA

#### Miller Creek

(62) TUV	Copper, Molybdenum
United Keno Hill Mines Limited	105 E 7
405 Main Street	(61° 17' N, 134° 50' W)
Whitehorse, Yukon Territory	

Reference: Bostock and Lees (1938)

Claims: TUV 1-24

#### Location and Access:

The property lies 14 miles east of Lake Laberge, roughly 42 miles northeast of Whitehorse. The claims can be reached by helicopter from Braeburn, 34 miles to the northwest, or from Whitehorse.

#### History:

The claims were staked in July 1972, when soil sampling outlined scattered copper and molybdenum anomalies.

#### Description:

The claims are underlain by a complex of syenite, monzonite, and granodiorite (Units 11 and 12, Bostock and Lees, 1938) which intrudes sediments of the Laberge Series (Unit 6, Bostock and Lees, 1938). Chalcopyrite and minor bornite occur in random fractures as thin coatings and as disseminated grains in quartz, calcite and dolomite veinlets. Oxidation of the chalcopyrite has resulted in the formation of malachite and minor azurite.

#### Current Work and Results:

Three hand trenches were put in over copper soil anomalies in 1973. The trenching did not expose copper occurrences more encouraging than those found during the earlier prospecting and geological mapping.



BIG SALMON RANGE AREA

Sawtooth Range

(63) LINDSAY, MINERAL, SPRING	Copper, Nickel
Trans-Yukon Exploration Limited	105 C 14
Post Office Box 1979	(60°56'N, 133°03'W)
Whitehorse, Yukon Territory	

References: Mulligan (1963); Craig and Laporte (1972, pp. 124-125).

Claims: LINDSAY 1-38, 41-43, 45-52; MINERAL 1-16; SPRING 4-16.

Location and Access:

The property is located at the south end of Quiet Lake in a valley at 2,500 to 3,000 foot elevation. Access is by a 3 mile road west from Mile 45 on the Canol Road.

History:

The original claims were staked in 1966 to cover an isolated magnetic anomaly on Government airborne magnetic survey maps 7007 G and 1345 G (1961). The same year the claims were optioned by Newmont Mining Corporation of Canada who conducted a geochemical survey and subsequently dropped their option. In 1967, Trans-Yukon Exploration Limited carried out airborne magnetic, electromagnetic and radiometric surveys of the area. In 1968, the company conducted ground geochemical, electromagnetic and magnetic surveys over two magnetic anomalies outlined from the airborne surveys. Ground magnetic surveys, soil sampling and an induced polarization survey were carried out in 1969. The ground magnetics served to outline the contact of an ultrabasic body and schistose host rock; the induced polarization survey outlined three anomalies in the schistose rocks near the intrusive contact. Copper and nickel soil geochemical anomalies were outlined coincident with the geophysical anomalies.

In 1970 and 1971 the property was inactive.

Description:

The property is almost entirely covered by overburden ranging up to 70 feet thick. The underlying rocks consist of northwest-trending, northeast-dipping schist, quartzite and gneiss of the Big Salmon Complex (Unit 1, Mulligan, 1963) of Mississippian or earlier age. Granodiorite of Cretaceous age (Unit 13, Mulligan, 1963) outcrops in the northwest corner of the property. Serpentinized dunite and peridotite (Unit 11, Mulligan, 1963) occurs in outcrop in Quiet Creek and is believed to underlie the central part of the claim group. Magnetite, as well as minor pyrite, is present in the ultrabasic rocks as fine disseminations and

narrow bands.

Current Work and Results:

Two diamond drill holes totalling 516 feet were drilled late in 1972. The holes encountered mainly shale and quartzite and some serpentinized ultrabasic rocks carrying trace amounts of pyrite.

WATSON LAKE MINING DISTRICT

CASSIAR MOUNTAINS AREA

Irvine Lake

(64) ZAK	Lead, Zinc, Silver
Hudson Bay Exploration and	105 B 11
Development Co. Ltd.	(60°31'N, 131°15'W)
Whitehorse, Yukon Territory	

Reference: G.S.C. Map 10-1960

Claims: ZAK 1-8, 14-21

Location and Access:

The claims are situated roughly 88 miles west-northwest of Watson Lake, five miles south of Irvine Lake. Access in 1973 was by helicopter from Watson Lake.

History:

The claims were staked in August 1973, following a program of surface prospecting. No previous work on the claims was reported.

Description:

The claims are underlain by metasediments of Cambrian age and (?) earlier (Units 1a, b and c, G.S.C. Map 10-1960) trending north to northwest and dipping 40°-60° to the south-west. To the south and southwest these rocks are intruded by granodioritic and monzonitic rocks of the Cassiar Batholith (Unit 15a, G.S.C. map 10-1960). Lead-zinc sulphides occur in quartz stringers in a brecciated dolomite.

Current Work and Results:

In addition to the surface prospecting, silt and soil sample surveys were conducted in 1973. IP was carried out over several of the claims and one trench cut. A total of 668 feet were drilled with a Winkie drill but core recovery was very poor.

FRANCES LAKE AREA

Hyland River

(65) RIETA, WO

Pan Ocean Oil Limited  
1050 - 355 4th Avenue S.W.  
Calgary 1, Alberta

Tungsten  
105 H 2, 7  
(61°15'N, 128°38'W)

Reference: G.S.C. Map 6-1966.

Claims: RIETA 1-26, WO 1-32

Location and Access:

The property lies 20 miles east of the south end of Frances Lake and approximately 12 miles west of the Cantung Road. The property can be reached by a tote road from Mile 47 on the Cantung Highway to the Monarch Mines Camp (a distance of roughly 12 miles from the Cantung Highway) after which a four-wheel drive vehicle is required. During the 1973 season the camp was serviced mainly by helicopter from Watson Lake, 90 miles to the south.

History:

The claims were staked by Mr. Cliff Turner in September and October, 1972 and were subsequently optioned to Pan Ocean Oil Limited who examined and sampled a showing on the property late in 1972.

Description:

The area is underlain by complexly-deformed pelitic sediments of Devono-Mississippian age (Unit 14, G.S.C. Map 6-1966) which are intruded by Cretaceous granitic rocks (Unit 15, G.S.C. Map 6-1966). The sedimentary rocks consist of siltstone, mudstone and recrystallized limestone, which have been metamorphosed to phyllite, slate, quartzite, schist, gneiss and remobilized limestone over much of the property. The metasediments are cut by numerous granodiorite dykes and sills. The granitic rocks consist mainly of biotite granodiorite with minor quartz monzonite. The main body of granodiorite lies to the west of the claims and is in contact with the sediments along a north trending fault.

Two types of mineralization have been recognized. One is in skarn developed at the contact of granodiorite intrusives and recrystallized impure limestone and consists mainly of scattered galena and sphalerite with lesser amounts of pyrrhotite, chalcopyrite and scheelite in tremolite-epidote skarn. The second type of mineralization consists of disseminated galena with occasional chalcopyrite and sphalerite in vuggy, altered zones of granodiorite. The second type of mineralization is not considered to have any economic importance.

### Current Work and Results:

During the 1973 field season the claims were mapped at a scale of 1"-500' and a reconnaissance geochemical program of stream sediment, soil and rock sampling was carried out. The main showing was trenched to a depth of 3 to 4 feet over a length of 18 feet. Six additional mineral occurrences were recognized in the course of geological mapping, although none was considered adequate to justify further work.

The reconnaissance geochemical survey was carried out at various intervals and samples were analyzed for copper, lead, zinc and tungsten. Four anomalies were outlined and a second phase of geochemistry involved detailed sampling on these anomalies at 100 foot intervals on grid lines spaced 100 to 200 feet apart. An area anomalous in tungsten about 700 feet by 800 feet was outlined on one of these grids and some bulldozer trenches were cut on it late in the season. The trenches were not successful in relating the anomaly to a bedrock source.

### LIARD PLATEAU AREA

#### Otter Lake

(66)MEL, JEAN	Lead, Zinc, Barite
Empire Metals Corporation Limited	95 D 6
5th Floor - 134 Abbott Street	(60°21'N, 127°25'W)
Vancouver, British Columbia	
V6B 2K4	

Reference: Gabrielse and Blusson (1969)

Claims: MEL 11-16, JEAN 1-21

#### Location and Access:

The property lies roughly 50 miles east-northeast of Watson Lake, 4 miles east of the Coal River and one and one-half miles south-southeast of Otter Lake. Access is by fixed wing aircraft from Watson Lake to Otter Lake and by helicopter to the property itself. A 28 mile winter tote road to the property leaves the Alaska Highway at Mile 590.

#### History:

The presence of barite with associated galena and sphalerite in this locality was known prior to the mapping of the area by the G.S.C. in 1967. In 1967 Newmont Mining Limited optioned the original MEL claims and exposed sulphides at four locations along a strike length of 1,600 feet. Assays were on the order of 5.0 per cent combined lead-zinc over sample widths from 7.5 to 30.0 feet. Subsequently, the MEL claims were acquired by the present holders. Some of the JEAN claims were staked in March, 1973 and the remainder in October, 1973. In September, 1973 the property



was optioned to Granby Mining Company Limited although work on the property in 1973 was carried out by Empire Metals Corporation Limited.

Description:

The claims are underlain by Lower Paleozoic carbonates and argillaceous sediments which have been folded along north-trending axes. On the western portion of the claims the rocks consist mainly of a competent, massive, fine-grained grey limestone (Unit 9, Gabrielse and Blusson, 1969). The east half of the claim group is underlain by silty limestone and calcareous phyllite (Unit 8, Gabrielse and Blusson, 1969) and is separated from the massive carbonates on the west half of the claims by a north-trending, steeply dipping, normal fault carrying barite-galena-sphalerite mineralization. This fault lies subparallel to, and several hundred feet east of a major, westerly-dipping thrust fault.

Current Work and Results:

Soil sampling in the fall of 1973 outlined several lead and zinc anomalies which appear to be coincident with and parallel to the known mineralized zone. Geological mapping confirmed the extension of the zone for 600 feet north of the previously known showings. Recommendations for further work included trenching and diamond drilling.

(67)MCMILLAN	Lead, Zinc, Silver
Hyland Joint Venture	95 D 5, 12
c/o Archer, Cathro and Associates	(60°31'N, 127°57'W)
Limited	
Post Office Box 4127	
Whitehorse, Yukon Territory	

References: Green (1966, pp. 72-74); Gabrielse and Blusson (1969)

Claims: PORKER 1-56

Location and Access:

The PORKER block of claims is situated immediately south of Quartz Lake and adjoins the east side of the Liard River Mining (Asarco) property. Access in 1973 was by float plane from Watson Lake, 40 miles to the southwest, to Quartz Lake.

History:

The claims were staked in July, 1973 and acquired by the Hyland Joint Venture which is composed of Marietta Resources International Limited, Mitsubishi Metal Corporation and L.T. and Harris Clay.



Description:

The property is underlain mainly by Proterozoic shale, slate, siltstone and limestone (Unit 1, Gabrielse and Blusson, 1969), striking northwest and dipping to the northeast. Disseminated pyrite and arsenopyrite with associated hydrothermal alteration are reported to occur in zones of siderite gossans. On the adjoining Liard River Mining Company Limited property to the west, roughly 1 million tons grading 5 per cent lead, 10 per cent zinc and 1.8 ounces of silver per ton were outlined at the base of a limestone conglomerate replaced by siderite and ankerite (Green, 1966, pp. 72-74).

Current Work and Results:

Geological mapping and soil and silt sampling conducted in 1973 is reported to have outlined a number of geochemical anomalies.

PELLY MOUNTAINS AREA

Seagull Creek

(68)MM

Anvil Mining Corporation Limited  
Box 1000  
Faro, Yukon Territory

Lead, Zinc  
105 F 7  
(61°27'N, 132°38'W)

Reference: G.S.C. Map 7-1960

Claims: MM 1-76, JJ 1-81

Location and Access:

The claims are situated on the west side of Seagull Creek in the vicinity of Peak 6570 and are roughly 37 miles south of Ross River. Access in 1973 was by helicopter.

History:

The MM claims were staked in July, 1973 and the JJ claims in September. The claims had been previously staked as the ARNOLD and ZINC groups.

Description:

The property is underlain by Middle and Upper Cambrian (?) phyllite and mafic-rich schist (Unit 2, G.S.C. Map 7-1960). The east side of the property is marked by a north-trending fault, east of which the underlying rocks are Lower Cambrian metasediments (Unit 1, G.S.C. Map 7-1960).

### Current Work and Results:

Field work in 1973 consisted of geological mapping and sampling, soil and silt sampling, a gravity survey and two diamond drill holes. Exploration target is a massive pyritic base metal deposit in mafic-rich schists.

(69)HOO	Zinc, Lead, Silver
Hoo Joint Venture	105 G 12
c/o Archer, Cathro and Associates Limited	(61°32'N, 131°33'W)
Post Office Box 4127	
Whitehorse, Yukon Territory	

Reference: G.S.C. Map 8-1960; Findlay (1967, p. 59; 1969a, p. 79).

Claims: HO-HO 1-272

### Location and Access:

The HO-HO claims are situated 50 miles southeast of Ross River and 15 miles south of mile 169 Campbell Highway. Access is by a 30 mile winter road from Mile 169 of the Campbell Highway or by fixed wing aircraft to a bush airstrip on the south side of the property.

### History:

Zinc-lead sulphides in limestone float and chalcopryrite in quartz float were discovered by Newmont prospectors in 1955. In 1966 the property was staked as the HOO claims by Northlake Mines Limited which carried out combined airborne magnetic and electromagnetic surveys, ground magnetic and electromagnetic surveys and limited geochemical surveys and geological mapping. Late in the year, a prominent electromagnetic anomaly was tested by four diamond drill holes totalling about 1,600 feet. This drilling encountered minor sulphides. In 1968, Northlake Mines Limited became inactive and the claims lapsed in 1971.

In the fall of 1972, the HO-HO claims were staked, prospected and soil sampled by Archer, Cathro and Associates on behalf of the South Yukon Joint Venture, composed of Marietta Resources International Limited, Union Oil Company of Canada Limited, Standard Oil Company of British Columbia, Strauss Exploration Incorporated and L.T. and Harris Clay. In 1973, this project was renamed the Hoo Joint Venture with the same participants.

### Description:

The property is underlain primarily by rock consisting of chlorite schist, massive limestone and muscovite-quartz-chlorite and biotite schists (Unit A, G.S.C. Map 8-1960) although very little is represented in outcrop. The western part of the property is covered by basalt flows of

Tertiary age (Unit 11, G.S.C. Map 8-1960)

The initial discovery consisted of float specimens up to several tons in size of laminated quartzite containing bands of disseminated sphalerite with minor amounts of galena and pyrite. Assays of float material ranged from 6.0 to 9.0 per cent zinc, 0.3 to 0.5 per cent lead, 0.3 to 0.5 ounces per ton silver and 0.02 to 0.04 per cent cadmium.

Current Work and Results:

Soil sampling in 1972 located five anomalies over a strike length of 18,000 feet. In 1973, further soil sampling was carried out and the anomalies were tested by bulldozer trenching and roughly 2,500 feet of diamond drilling in 8 holes. The holes were reported to have intersected several narrow sulphide horizons but grades were lower than indicated by surface float.

(70)FETISH

Finlayson Joint Venture

c/o Archer, Cathro and Associates  
Limited

Post Office Box 4127

Whitehorse, Yukon Territory

Copper, Lead, Zinc

105 G 8

(61°25'N, 130°07'W)

Reference: G.S.C. Map 8-1960

Claims: FETISH 1-20

Location and Access:

The claim block is situated roughly one mile southeast of the southeast end of Wolverine Lake, 85 miles east south-east of Ross River. Access in 1973 was by helicopter.

History:

The claims were staked in July, 1973, for the Finlayson Joint Venture, a consortium consisting of Marietta Resources International Limited, Standard Oil Company of British Columbia, Union Oil Company of Canada and L.T. and Harris Clay. No previous work has been reported.

Description:

The claims are underlain primarily by quartz-biotite and quartz-chlorite schist and micaceous quartzite (Unit A, G.S.C. Map 8-1960) which have a northwest-trending foliation. To the northeast of the property, these rocks are in contact with partly altered, green volcanic rocks, greenstone and metadiorite (Unit 6a, G.S.C. Map 8-1960). Copper, lead and zinc sulphides have been found in mineralized chlorite schist occurring as float and geochemical anomalies are present.

Current Work and Results:

Geological mapping and soil and silt sampling were carried out in 1973.

(71)MYDA	Tungsten
Finlayson Joint Venture	105 G 7
c/o Archer, Cathro and Associates	(61°24'N, 130°30'W)
Limited	
Post Office Box 4127	
Whitehorse, Yukon Territory	

Reference: G.S.C. Map 8-1960

Claims: MYDA 1-32

Location and Access:

The claim group is situated roughly 3 miles east of North Lakes, 75 miles southeast of Ross River, from which the property is accessible by float plane.

History:

The claims were staked in August, 1973, for the Finlayson Joint Venture, a consortium composed of Marietta Resources International Limited, Standard Oil Company of British Columbia, Union Oil Company of Canada and L.T. and Harris Clay. No previous work in the area is reported.

Description:

The property is underlain mainly by quartz-feldspar-biotite gneiss (Unit C, G.S.C. Map 8-1960) which is intruded by an unmapped biotite quartz monzonite stock (Unit 9, G.S.C. Map 8-1960). Scheelite is reported to occur in skarn developed in a limy horizon in the quartz-feldspar-biotite gneiss near the biotite quartz monzonite contact. The skarn is composed of 40-80 per cent scapolite with plagioclase, quartz and minor diopside, garnet and vesuvianite.

Current Work and Results:

Geological mapping and minor sampling carried out in 1973 indicated the grade of  $WO_3$  to be less than 0.1 per cent.

PELLEY PLATEAU AREA

McEvoy Lake

(72) IRENE, FISH	Zinc, Lead, Copper
Vestor Explorations Limited	105 G 16
1502 - 11111 87th Avenue	(61°46'N, 130°15'W)
Edmonton, Alberta	

Reference: G.S.C. Map 8-1960

Claims: IRENE 1-28, FISH 1-6

Location and Access:

The claims are situated several miles south of McEvoy Lake approximately 70 miles east of Ross River from which the claims can be reached by helicopter.

History:

The IRENE claims were staked in October, 1972 and the FISH claims in July, 1973. No previous work on the property has been reported.

Description:

The property is underlain by Middle and Upper Cambrian phyllite, quartzite and limestone (Unit 2, G.S.C. Map 8-1960) intruded by granodiorite, aplite and felsite of Jurassic and/or Cretaceous age (Unit 9, G.S.C. Map 8-1960). Hornfels and skarn are developed along contact zones of the intrusive and related dykes.

Current Work and Results:

Geochemical sampling in 1973 outlined a number of small lead-zinc anomalies. Sphalerite, chalcopyrite and traces of galena were observed in skarn developed adjacent to a felsite dyke. Recommendations for further work included detailed geochemistry and ground magnetic and electromagnetic surveys.



SELWYN MOUNTAINS AREA

Summit Lake

(73) HOWARDS PASS PROPERTY	Lead, Zinc
Canex Placer Limited	105 I 6, 11, 12
1030 West Georgia Street	(62°27'N, 129°11'W)
Vancouver, British Columbia	
V6E 3A8	

References: G.S.C. Map 8-1967; Craig and Milner (1974).

Claims: DON, OP, R, X, Y, ANNIV. - total of 355 claims  
in Yukon

Location and Access:

The property lies along the crest of the Selwyn Mountains and straddles the Northwest Territories-Yukon border, roughly 160 miles north of Watson Lake and 100 miles east-northeast of Ross River. During the winter of 1972-73 heavy equipment was brought in on a winter road from Mile 101 on the Nahanni Range Road. During the 1973 field season the property could be reached by float-equipped aircraft from either Watson Lake or Ross River to Summit Lake and then via helicopter to the property itself. Later in the season an airstrip was completed west of the main camp which was used by aircraft equipped with oversize wheels.

History:

The area was originally investigated by the company in 1968 during the course of a regional geochemical survey. In 1971 the company returned to the area for more detailed geochemical sampling. Further geochemical work and prospecting in 1972 resulted in the discovery of the initial showings of galena and sphalerite in July and approximately 450 claims were staked by the company between then and the end of August. Late in the season a bulldozer was brought in and a series of trenches were cut across the mineralized zone. Announcement of the discovery that fall resulted in a major staking rush into the area.

Description:

The Howards Pass Property lies within the Selwyn Fold Belt and is underlain by Paleozoic sediments of the Selwyn Basin. The oldest unit in the immediate area is an Upper Cambrian and (?) Ordovician limestone (Unit 7b, G.S.C. Map 8-1967) which is irregularly banded and is locally referred to as the "wavy-banded" limestone. This limestone apparently grades conformably through a transitional zone into a sequence of shales, sandstones and conglomerates (Unit 18b, G.S.C. Map 8-1967) ranging from Ordovician to Devonian-Mississippian in age. Above the transitional zone this unit consists of up to 1,000 feet of calcareous, cherty and siliceous shales possibly correlative with the Road River Formation. These are overlain by at least 2,000 feet of black clastics consisting of several successions of

shale, sandstone and chert-pebble conglomerate. The rocks are tightly folded within a broad synclinalorium trending roughly west-northwest. Isoclinal and chevron folds are present and a pervasive cleavage has been developed in the shales.

Extremely fine-grained galena and sphalerite occur within a zone of black, graphitic, laminated shale approximately 200 feet above the limestone-shale contact. Although the mineralized zones in the shales may be as much as 100 feet thick, the highest grades of lead and zinc occur in thin calcareous lenses in the shale which reportedly run as high as 40 per cent combined lead-zinc. Mineral showings have been observed in several places over a total strike length of approximately 16 miles.

#### Current Work and Results:

In 1973, detailed geological mapping and soil sampling was conducted on the property. A reconnaissance gravity survey was carried out in the area of the mineralized zone. The mineralized zone was trenched by bulldozer in a number of places and 26 diamond drill holes were put down for a total of 15,400 feet.

In their 1973 Annual Report, the company stated that the work had proved the presence of mineralization but showed the structure to be more complex and the grade to be lower than original surface exposures suggested. A reduced exploration program is planned in 1974.

(74) TAP	Zinc
Dynasty Explorations Limited	105 I 5, 12
330 - 355 Burrard Street	(62°29'N, 129°37'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: TAP 21-76, 100-113, 200-231

#### Location and Access:

The claim group is situated roughly 20 miles northwest of Summit Lake from which it can be reached by helicopter. Access by helicopter is also possible from Cominco Lake, 17 miles further to the northwest.

#### History:

The claims were staked by Dynasty in July and August, 1973 on a zinc anomaly, following a regional reconnaissance program.

Description:

Although outcrop is scarce, the area appears to be underlain primarily by black clastics, consisting of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). Minor dolomitic and baritic beds have been noted locally. Strike of the beds trends north-north-westerly.

Current Work and Results:

In July, 1973, regional and detailed geochemical samples were collected from the TAP claims. A number of areas with zinc anomalies were outlined, including two which are considered attractive targets. Further work recommended for the anomalous areas included detailed geochemistry and reconnaissance magnetometer and electromagnetic surveys.

(75)MS

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Tungsten, Copper, Zinc,  
Molybdenum  
105 J 16  
(62°46'N, 130°11'W)

Reference: G.S.C. Map 12-1961

Claims: MS 10-21, 30-41, 60-73, 90-101

Location and Access:

The MS claims lie roughly 5 miles south of Itsi Lakes, and 12 miles northwest of Cominco Lake. Access is by fixed wing from Ross River, 92 miles southwest, to either Itsi Lakes or Cominco Lake and then via helicopter.

History:

The claims were staked in July, 1973, following the discovery of minor copper showings. The work on the claims was undertaken by Dynasty Explorations Limited under an agreement between Dynasty, Atlas Explorations Limited, Shield Resources Limited and Numac Oil and Gas Limited.

Description:

Outcrops on the property consist of clastic sedimentary rocks of Lower Ordovician to Middle Silurian age (Unit 3, G.S.C. Map 12-1961). The sequence is comprised of inter-bedded chert and shale with minor limestone, quartzite and conglomerate which are folded about northwest-trending axes. To the north, on the adjoining FOX claims, these rocks are intruded by coarse-grained, porphyritic quartz monzonite and granodiorite of Cretaceous age (Unit 11, G.S.C. Map 12-1961). No outcrops of intrusive were noted on the MS claims but there are several gossans, possibly related to skarn-type mineralization.

Current Work and Results:

Field work in 1973 consisted of reconnaissance soil and silt sampling over the claims. Two anomalies were outlined by the geochemistry and recommended for further work including detailed soil sampling, geological mapping and a ground magnetometer survey.

(76) PAS

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Lead, Zinc  
105 I 6, 11  
(62°29'N, 129°14'W)

Reference: G.S.C. Map 8-1967

Claims: PAS 1-50

Location and Access:

The claims lie roughly 110 miles east-northeast of Ross River along the Yukon-Northwest Territories border. Access in the 1973 field season was via helicopter from Cominco or Summit Lake.

History:

Claims PAS 1-32 were staked in October, 1972 following the announced lead-zinc discovery by Canex Placer. The additional fractional claims were staked in August, 1973. No previous work on the property is reported.

Description:

The claim group is underlain by a folded sequence of Lower Paleozoic sediments. At the base of this sequence is the wavy-banded limestone, thinly bedded, buff-weathering and dolomitic (Unit 7b, G.S.C. Map 8-1967). The wavy banded grades upward through a thinly-bedded, buff and black weathering, dolomitic transition zone into black graptolitic shales, locally graphitic and calcareous (Unit 10 (?) G.S.C. Map 8-1967). The shales are successively overlain by limy argillites and black shales (Unit 18b, G.S.C. Map 8-1967).

Current Work and Results:

Field work in 1973 consisted of reconnaissance geological mapping and geochemical surveys. These were followed by detailed geochemical sampling and geological mapping in anomalous areas. A zone anomalous in lead, associated with a lesser zinc and copper anomaly was outlined and found to correspond with a four to six inch lead and zinc-rich horizon in the black shales above the transition zone. Assays from this horizon averaged 3.99% lead, 14.5% zinc and 0.12 oz per ton silver. Samples from the six inches above this horizon assayed 0.15% lead and 1.24% zinc.



Recommendations for further work included additional geochemical sampling plus bulldozer or hand trenching on the anomalies.

(77) GULL, DYN, DEA	Lead, Zinc
Dynasty Explorations Limited	105 I 11
330 - 355 Burrard Street	(62°33'N, 129°24'W)
Vancouver 1, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: GULL 1-54; DYN 1-24; DEA 1-34

Location and Access:

The claim groups form a contiguous block trending roughly northwest situated approximately 108 miles east-northeast of Ross River and are directly adjacent to the DON and R groups of Canex Placer. Access to the property in 1973 was by float plane from either Ross River or Watson Lake to one of the small lakes (Cominco, Summit) in the area and then by helicopter.

History:

The claims were staked in the winter of 1972-73 following the lead-zinc discovery by Canex Placer. The GULL and DYN groups were staked for Dynasty; the DEA claims have been optioned from Welcome North Mines Limited. No previous work is reported on the claims.

Description:

The claim group is underlain by a folded sequence of Lower Paleozoic sedimentary rocks which is not well exposed on this property. Lowermost in this sequence is the wavy-banded limestone, a thinly-bedded, buff-weathering, dolomitic limestone (Unit 7b, G.S.C. Map 8-1967). This unit usually grades upward into a dolomitic, shaly transition zone which was not observed in outcrop or float on this property. Overlying the transition zone is a sequence of black shales, locally graphitic and calcareous which were observed in only a few outcrops (Unit 10 (?), G.S.C. Map 8-1967). This unit is thought to be stratigraphically similar to the shales which contain the lead-zinc mineralized zones on the Canex Placer property although no sulphides were observed on these claims. Overlying these shales are limy argillites and black shales (Unit 18b, G.S.C. Map 8, 1967).

The beds are folded into two anticlines trending roughly northwest following the regional trend. The beds are also cut by a fault trending northeast across the fold axes.



Current Work and Results:

Field work in 1973 consisted of reconnaissance geological mapping and geochemical surveys. One area on the GULL group, anomalous in lead and zinc, was subjected to detailed soil sampling. Additional soil sampling and bulldozer trenching were recommended for the anomalies found in the detailed work.

(78)PREVO	Lead, Zinc
Dynasty Explorations Limited	105 I 12
330 - 355 Burrard Street	(62°37'N, 129°40'W)
Vancouver 1, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: PREVO 1-42

Location and Access:

The claims are located approximately 20 miles north-northwest of Summit Lake, 105 miles east-northeast of Ross River. Access is by float plane from Watson Lake or Ross River to either Summit Lake or a small lake to the north-west locally referred to as Cominco Lake and then by helicopter to the property itself.

History:

The claims were staked in the fall of 1972 following the lead-zinc discovery by Canex Placer. No previous work on the claims is recorded.

Description:

The claims are underlain by a sequence of Lower Paleozoic sediments. A wavy-banded limestone is lowermost in the sequence and consists of a thinly-bedded, grey to brown weathering dolomitic rock with limestone pebbles and bands (Unit 7b, G.S.C. Map 8-1967). The carbonates are overlain by grey-weathering black shales which are in turn overlain by buff-weathering, pyrite-rich, limy argillites (Unit 18b, G.S.C. Map 8-1967). Chert-pebble conglomerates, chert greywacke and black shales are uppermost in the sequence. No sulphide occurrences were found.

The strata are folded on west-northwest-trending axes, following the regional trend; the southern part of the claim group is underlain by an anticline, the northern part is underlain by a synclinal structure.

Current Work and Results:

Field work in 1973 consisted of reconnaissance geochemistry and geological mapping. Two areas anomalous in zinc, lead and copper were located from soil and silt samples and were subjected to detailed soil sampling. Anomalous zones were outlined by the detailed sampling but no strong targets were defined and no further work was recommended.

(79) TAM

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Lead, Zinc  
105 I 12  
(62°34'N, 129°45'W)

Reference: G.S.C. Map 8-1967

Claims: TAM 1-48

Location and Access:

The claims are situated 19 miles northwest of Summit Lake, approximately 96 miles east-northeast of Ross River. Access to the property in 1973 was by helicopter from either Summit Lake or Cominco Lake, the only lakes in the area which can be serviced by float planes from Watson Lake or Ross River.

History:

The claims were staked in the fall of 1972 by Welcome North Mines Limited, following the discovery of lead-zinc by Canex Placer. The claims were subsequently optioned to Dynasty. No previous work is recorded for these claims.

Description:

The property is underlain by Lower Paleozoic sediments consisting of argillite overlain by chert and shale, chert-pebble conglomerate and siltstone (Unit 18b, G.S.C. Map 8-1967). No mineralization was observed.

The main structure is a synclinal fold along an east-west trending axis. Within the synclinal structure shale and chert units are complexly folded. The structure is apparently cut by two northeast-trending faults.

Current Work and Results:

In 1973, reconnaissance geochemistry and geologic mapping were conducted. Lead, zinc and copper anomalies were erratically distributed and consisted mainly of spot highs. Follow-up rock geochemical sampling was undertaken in several areas, but none of the areas examined in detail appeared to merit any further work. A small amount of further work was recommended, mainly to fulfill assessment requirements.

(80) ORO Barite  
Noranda Exploration Company Limited 105 I 12  
Box 2380 (62°37'N, 129°48'W)  
Vancouver, British Columbia  
V6B 3W7

Reference: G.S.C. Map 8-1967

Claims: ORO 1-40, BUC 1-8, MAR 1-3, DAR 1-7 Fr.

Location and Access:

The claims lie approximately 187 miles north of Watson Lake on the west side of the Pelly River. Access is by helicopter.

History:

The claims were staked following the announcement of a significant lead-zinc discovery by Canex Placer. No previous work on the claims is reported.

Description:

The claims are underlain primarily by shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). These rocks are folded along northwest-trending fold axes.

Current Work and Results:

A stream sediment survey was carried out over the entire property and soil sampling over local areas. Barite was discovered and was explored by six diamond drill holes totalling 1,026 feet late in the season. There were apparently no lead-zinc sulphides associated with the barite.

(81) KAY, NESS, MAD Lead, Zinc  
Noranda Exploration Company Limited 105 I 6, 11  
Box 2380 (62°28' to 62°31'N,  
Vancouver, British Columbia 129°15' to 129°24'W)  
V6B 3W7

References: G.S.C. Map 8-1967; Gabrielse, Blusson and Roddick (1973)

Claims: KAY 1-16; NESS 1-12, 19-26, 33-44; MAD 1-14, 17-24

Location and Access:

The three claim groups are in separate blocks lying along a northwest-trending line centered roughly 11 miles north of Summit Lake. During the 1973 field season access was provided by helicopter either from the Canex Placer camp or from Summit Lake.

### History:

The claims were staked in the fall of 1972 during the staking rush following the announced discovery by Canex Placer. No previous work is reported on the claims.

### Description:

The claims are underlain by sedimentary rocks ranging from Cambrian to Devonian-Mississippian in age. The oldest unit is a thin sequence of buff to grey-weathering limestone and dolomite with thin, undulating beds (Unit 7b, G.S.C. Map 8-1967). This unit is referred to as the wavy-banded limestone. The wavy-banded limestone is overlain by approximately 700 feet of graphitic and graptolitic shales with some poorly-bedded, cherty shales near the top. These shales are possibly correlative with the Road River Formation (Gabrielse et al, 1973). Overlying the shales is a sequence of repetitive interbeds of silty, sandy and pebbly shale, chert sandstone and chert-pebble conglomerate. This unit underlies more than half the area of the claim groups and is up to 3,000 feet thick.

The structure is a northwest-trending overturned anticline with the beds dipping 45° to 55° southwest.

No lead or zinc minerals were recognized. Minor malachite, azurite and tetrahedrite were found associated with calcite in a graphitic shear zone on the MAD claim group.

### Current Work and Results:

Field work in 1973 consisted of geological mapping and stream sediment and soil geochemical surveys. Lead and zinc anomalies on the MAD and NESS claims were tentatively correlated with the shales of the Road River Formation. No anomalies were recognized on the KAY group.

(82) BET  
Noranda Exploration Company Limited  
Post Office Box 2380  
Vancouver, British Columbia  
V6B 3W7

Zinc  
105 I 12  
(62°36'N, 129°47'W)

Reference: G.S.C. Map 8-1967

Claims: BET 1-26

Location and Access:

The claims lie on the west side of the Pelly River roughly 22 miles northwest of Summit Lake. Helicopter from Cominco Lake or Summit Lake was the normal mode of access in 1973.

History:

The claims were located in the fall of 1972 and subsequently optioned by Noranda. No previous work has been done on the claims.

Description:

The underlying rocks, although poorly exposed, consist mainly of Devonian-Mississippian black clastics comprising shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). The strata strike roughly northwest and dip 40° to 70° to the southwest. No lead, zinc or copper sulphides were found.

Current Work and Results:

Work in 1973 consisted of geological mapping and geochemical stream sediment and soil surveys. Zinc anomalies in stream sediments were outlined for which there was no apparent local source. Zinc, cadmium, copper and molybdenum anomalies found in the soils were apparently related to drainage patterns or mechanically transported materials. No further work was recommended.

(83) LEA  
Makao Development Company Limited  
600-789 West Pender Street  
Vancouver, British Columbia

Lead, Zinc  
105 I 11  
(62°32'N, 129°20'W)

Reference: G.S.C. Map 8-1967

Claims: LEA 1-15

Location and Access:

The property is situated 170 miles north of Watson Lake and 12 miles north of Summit Lake. Access is by fixed wing from Ross River or Watson Lake to Summit Lake and then by helicopter to the property itself.



History:

The claims were staked in the fall of 1972 following the lead-zinc discovery by Canex Placer and subsequently acquired by the present owners. No previous work is reported.

Description:

The property is underlain predominantly by wavy-banded and massive grey limestone (Unit 7b, G.S.C. Map 8-1967). The limestone is overlain by siliceous shale (Unit 18b, G.S.C. Map 8-1967) in the northeastern part of the claims. The underlying structure is a major overturned anticline striking roughly east-west with dips varying from 55° to 70° to the south. Although some gossan was noted on the shale-limestone contact, no galena or sphalerite was recognized in the outcrops.

Current Work and Results:

Field work in 1973 consisted of geological mapping, prospecting and soil sampling. A sample from the gossan on the shale-limestone contact was found to assay 2.5 per cent zinc. Soil samples in the same horizon were anomalous in zinc but not in lead. The zinc anomaly was considered to be due to transport of accessory zinc mineralization. No further work was recommended.

(84)BEA, DOP, NOR	Lead, Zinc
Makao Development Company Limited	105 I 11, 12
600 - 789 West Pender Street	(62°35'N, 129°35'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: BEA 1-7, 10-15, 18-23, 26-29; DOP 8-9, 16-17, 24-25, 28-29; NOR 14-19, 34-39, 51-56

Location and Access:

The claims form one contiguous block situated astride the Northwest Territories-Yukon boundary roughly 158 miles north of Watson Lake, Y.T. Access in 1973 was by float plane from Watson Lake or Ross River to Summit Lake and then by helicopter to the property 18 miles north-northwest of Summit Lake.

History:

The claims were staked in the fall of 1972 following the lead-zinc discovery by Canex Placer and were subsequently acquired by the present owners. No previous work is reported.

Description:

The southern part of the claims is underlain by wavy-banded limestone (Unit 7b, G.S.C. Map 8-1967). To the north the limestone grades into calcareous shale overlain by siliceous shale (Unit 18b, G.S.C. Map 8-1967). The strata strike consistently 280-285° and dip steeply south. Cleavage is intense and is roughly parallel with the bedding. No lead-zinc sulphides were observed.

Current Work and Results:

Field work in 1973 consisted of geological mapping, prospecting and soil sampling. Scattered anomalous zones coincident in zinc and lead were found. Further soil sampling on a more detailed scale was recommended as well as some bulldozer trenching as conditions become feasible.

(85)MTX

NRD Mining Limited  
305 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L2

Lead, Zinc  
105 I 12  
(62°35'N, 129°45'W)

Reference: G.S.C. Map 8-1967

Claims: MTX 1-63

Location and Access:

The property is situated 200 miles north of Watson Lake and about 20 miles north-northwest of Summit Lake. Access is by fixed wing aircraft to Summit Lake from either Ross River or Watson Lake and then by helicopter to the property itself.

History:

The claims were staked in the fall of 1972 following the lead-zinc discovery by Canex Placer. No previous work is reported.

Description:

The property is underlain entirely by chert-pebble conglomerate, chert sandstone, sandstone, shale and argillite (Unit 18b, G.S.C. Map 8-1967) which have been folded along a roughly east-west axis. No mineral showings were found although some gossan is present.

Current Work and Results:

In addition to geological mapping, soil sampling was carried out on the claims in 1973. Four areas anomalous in zinc were outlined but there were no lead anomalies. Additional soil sampling has been recommended.

(86) POS, FOS	Lead, Zinc
Thor Explorations Limited	105 I 12
301 - 540 Burrard Street	(62°31'N, 129°47'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: FOS 1-16, POS 7-14, 63, 102

Location and Access:

The claims form two closely-spaced blocks situated roughly 200 miles north of Watson Lake and 16 miles north-northwest of Summit Lake. Access in 1973 was by fixed wing aircraft to Summit Lake from either Ross River or Watson Lake and by helicopter to the property from Summit Lake.

History:

The claims were staked early in 1973 as a result of the lead-zinc discovery by Canex Placer. No previous work on the property is known.

Description:

Rocks underlying the property consist primarily of grit, sandstone, conglomerate and slaty shale (Unit 18b, G.S.C. Map 8-1967) which have been folded along east-west trending axes. Although some gossans have been observed, no sulphide minerals were found.

Current Work and Results:

Field work in 1973 consisted mainly of soil sampling. A number of zinc anomalies were found but lead highs were erratic and apparently unrelated to the zinc distribution. Further soil sampling was recommended.

(87) SAM	Lead, Zinc
Thor Explorations Limited	105 I 12
301 - 540 Burrard Street	(62°35'N, 129°45'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: SAM 1-12

Location and Access:

The claims lie roughly 200 miles north of Watson Lake, east of the Pelly River and 20 miles north-northwest of Summit Lake. Access is by fixed wing aircraft to Summit Lake from either Ross River or Watson Lake and by helicopter to the property from Summit Lake.

History:

The claims were staked early in 1973 following the discovery of lead-zinc mineralization by Canex Placer. No previous work is known.

Description:

The property is underlain by argillite, sandstone, chert sandstone, chert-pebble conglomerate and slaty shale which have been folded into a syncline along an east-west trending axis. No mineral showings were found.

Current Work and Results:

Soil sampling was carried out in 1973 with samples being taken at 200 foot intervals on lines 800 feet apart. Separate lead and zinc anomalies were outlined and hand trenching was recommended to determine a bedrock source.

(88)ROSS	Lead, Zinc
Cream Silver Mines Limited	105 I 12
107 - 325 Howe Street	(62°29'N, 129°17'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: ROSS 1-48

Location and Access:

The ROSS Group is situated 9 miles north of Summit Lake. Access is by helicopter from Summit Lake.

History:

The claims were staked in the rush that followed the announcement by Canex Placer of a significant lead-zinc discovery in the area. The claims are currently under option from Maverick Syndicate.

Description:

The underlying rocks consist of Lower Paleozoic sediments. Lowermost in the sequence is the wavy-banded limestone of Upper Cambrian-Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967) which is overlain by a sequence of Ordovician to Devonian black, graphitic and siliceous shales correlative to the Road River Formation. These are conformably overlain by a thick sequence of Devono-Mississippian black clastics consisting of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). The structure underlying the property is a westerly-plunging anticline which has exposed the wavy-banded limestone in the central portion of the property.

Current Work and Results:

In 1973 the property was geologically mapped and soil and rock geochemical surveys were undertaken. A number of coincident lead-zinc soil anomalies were recognized and although no sulphide minerals were found, rock samples in the area of the soil anomalies assayed up to 2.2% combined lead-zinc. At least one anomaly occurred over strata considered to be in the same horizon as the mineralized zone on the Canex Placer property to the east.

(89)PB	Lead, Zinc
Tanzilla Explorations Limited	105 I 12
4 - 558 Howe Street	(62°36'N, 129°30'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: PB 1-28

Location and Access:

The claims are situated 105 miles east-northeast of Ross River and 19 miles north-northwest of Summit Lake. Access is by fixed wing aircraft from either Ross River or Watson Lake, to Summit Lake and then by helicopter to the property itself. A small lake one-half mile east of the property can be used by fixed wing aircraft under favourable conditions.

History:

The original claims were staked in November, 1972 following the announcement of a lead-zinc discovery by Canex Placer. Additional claims were staked in July, 1973 to cover open ground to the west of the original group. No previous work on the claims has been reported.

Description:

The property is underlain primarily by grit, sandstone, chert-pebble conglomerate and slaty shale (Unit 18b, G.S.C. Map 8-1967) although the underlying wavy-banded limestone (Unit 7b, G.S.C. Map 8-1967) is exposed in the southern portion of the claims. No mineralized zones were recognized.

Current Work and Results:

Soil sampling in 1973 demonstrated several zinc anomalies. Further detailed geochemistry was recommended.



(90)NOR, PELL	Lead, Zinc
Vestor Explorations Limited	105 I 12
1502 - 11111 87th Avenue	(62°37'N, 129°45'W)
Edmonton, Alberta	

Reference: G.S.C. Map 8-1967

Claims: NOR 1-13, 20-33, 40-50; PELL 1-56

Location and Access:

The NOR and PELL claims are in two separate blocks, the NOR group and the PELL group. The NOR group is located on the south side of Ebbe Creek, 19 miles north-northwest of Summit Lake. The PELL claims lie one mile to the south of the NOR group. Access in 1973 was by helicopter from Summit Lake or from Cominco Lake, roughly 9 miles to the northwest.

History:

The PELL group was staked by Vestor in the rush following the discovery in August, 1972 of lead-zinc occurrences on the Canex property. The NOR group was also staked about the same time and subsequently acquired by Vestor. No previous exploration activity has been reported.

Description:

The area is underlain by a broad antiform structure which plunges generally to the northwest. The Cambrian wavy-banded limestone (Unit 7b, G.S.C. Map 8-1967) is exposed in the core of this structure, mainly on the southern portion of the NOR claims. The black graphitic and cherty shale (Unit 10, G.S.C. Map 8-1967) overlies the wavy-banded limestone and is exposed on the northern portion of the NOR claims and immediately south of the NOR group. The Devonian-Mississippian black clastic sequence of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967) underlies the PELL claims but is poorly exposed in outcrop. No lead-zinc sulphide occurrences were observed on the property.

Current Work and Results:

Field work in 1973 consisted of geologic mapping and geochemical soil, silt and rock sampling. A number of lead and zinc anomalies were outlined on the NOR claims in areas underlain by the black graphitic shales. A number of anomalies were also outlined on the PELL group but were not considered significant because the area is underlain by the black clastic unit.

(91)UN

Vestor Explorations Limited  
1502 - 11111 87th Avenue  
Edmonton, Alberta

Lead, Zinc  
105 I 12  
(62°37'N, 129°45'W)

Reference: G.S.C. Map 8-1967

Claims: UN 1-19

Location and Access:

The UN group of claims is situated mainly on the east side of the Pelly River about 22 miles north-northwest of Summit Lake. Access in 1973 was by helicopter from either Summit or Cominco Lake.

History:

The claims were staked by Vestor following the Canex Placer discovery in August, 1972. There is no record of any prior exploration activity in the area.

Description:

The most abundant rock type underlying the property is the Cambrian wavy-banded limestone (Unit 7b, G.S.C. Map 8-1967) which is exposed in the core of a major anticline plunging to the northwest through the centre of the property. The Devonian-Mississippian black clastic sequence, comprising shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967) outcrops immediately south of the claims. The black graphitic shale and siltstone (Unit 10, G.S.C. Map 8-1967) do not outcrop on the property and are inferred to be present in subcrop.

Several areas of bog iron accumulations were noted. These may be due to weathering of sulphides in the graphitic shales but are more likely due to weathering of pyrite in the overlying conglomerates and the deposition of iron oxide by ground waters.

Current Work and Results:

Geological mapping and geochemical soil and silt sampling were conducted on the property in 1973. A number of zinc anomalies were outlined and it was recommended that these be examined by more detailed soil sampling.

(92) TROIS	Lead, Zinc
Vestor Explorations Limited	105 I 11
1502 - 11111 87th Avenue	(62°32'N, 129°27'W)
Edmonton, Alberta	

Reference: G.S.C. Map 8-1967

Location and Access:

The TROIS group is situated on the south side of Don Creek about 12 miles north of Summit Lake from which it is accessible by helicopter.

History:

The claims were staked in the fall of 1972 following the announced discovery of lead-zinc by Canex Placer. No previous activity in the area is known.

Description:

The area is underlain by Lower Paleozoic clastic sediments exposed in a northwest-plunging syncline, the axis of which runs through the centre of the property. The oldest exposed rocks are the black graphitic and cherty shales of Ordovician or Silurian age (Unit 10, G.S.C. Map 8-1967) which outcrop mainly on the western part of the claims. The remainder of the claims is underlain mainly by Devono-Mississippian shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). Two mineral occurrences have been noted, one described as a breccia with quartz and shale fragments which assayed 1.7% zinc and the other as black shale with malachite staining and containing barite. Both occurrences are in areas underlain by the Devono-Mississippian conglomerate-grit Unit.

Current Work and Results:

Field work in 1973 consisted of reconnaissance geology and geochemical sampling followed by more detailed mapping and detailed soil sampling. Samples were analyzed for copper, lead and zinc. A significant zinc anomaly was outlined in an area underlain by graphitic shale and it was recommended that it be examined in more detail, initially by more detailed soil sampling and perhaps trenching. A number of zinc anomalies were also outlined in areas underlain by shale, chert sandstone and chert-pebble conglomerate; these were not considered to reflect any significant mineralization.

(93) BEV	Lead, Zinc
Cominco Limited	105 I 12
2200 - 200 Granville Square	(62°39'N, 129°50'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: BEV 1-96

Location and Access:

The BEV claims form a single block on the southeast side of a small lake locally referred to as Cominco Lake, roughly 26 miles northwest of Summit Lake. Fixed wing aircraft from Ross River or Watson Lake serviced camps on Cominco Lake in 1973.

History:

The claims were staked by Cominco in November, 1972 following the discovery of lead-zinc mineralization by Canex Placer. No previous work on the claims is known.

Description:

The property is underlain entirely by Lower Paleozoic sedimentary rocks. The oldest exposed rocks are the Upper Cambrian to Lower Ordovician, wavy-banded limestone (Unit 7b, G.S.C. Map 8-1967). The limestone is overlain by roughly 300 feet of Ordovician to Silurian shale, probably correlative with the Road River Formation (Unit 10, G.S.C. Map 8-1967). The top of the sequence consists of over 3,000 feet of Devonian-Mississippian black clastics composed of shale, chert sandstone and chert-pebble conglomerate.

The strata have been folded along northwest-trending axes. Folding is generally open although locally there is tight, isoclinal folding.

No lead-zinc sulphide minerals have been observed on the property.

Current Work and Results:

Field work on the property in 1973 consisted of geological mapping and geochemical soil and rock sampling. A number of zinc anomalies were outlined and it was recommended that these be investigated further.

(94)NAH	Lead, Zinc
Dasson Copper Corporation Limited	105 I 5, 6, 11, 12
415 - 1015 Beaver Hall Hill	(62°30'N, 129°30'W)
Montreal, Quebec	

Reference: G.S.C. Map 8-1967

Claims: NAH 1-22, 39-56, 73-90, 107-124, 141-152

Location and Access:

The claims occur in two separate blocks roughly two miles apart which lie 10 miles north of Summit Lake. The two groups can be reached by helicopter from Summit Lake.

History:

The claims were staked in the fall of 1972 and subsequently acquired by Dasson. No previous work has been done on the claims.

Description:

The claims lie on the southern limb of a northwest-trending anticlinal structure. Local folding is tight and isoclinal.

The underlying rocks consist mainly of Devonian-Mississippian black clastics consisting of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). However, on the northern portion of the east block of claims, underlying wavy-banded limestone of Upper Cambrian to Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967) and graphitic shale of the Road River Formation (Unit 10, G.S.C. Map 8-1967) have been exposed.

Current Work and Results:

Geological mapping and soil geochemistry were carried out in 1973 on a reconnaissance basis. No significant geochemical anomalies were located and no lead-zinc sulphide occurrences were observed. In general, except for the northern portion of the east block of claims, the strata are considered to be too high in the sequence to be correlated with the strata containing lead-zinc mineralization at the Canex Placer property.



(95)KAM	Lead, Zinc
Golden Gate Explorations Limited	105 I 12
26 - 425 Howe Street	(62°38'N, 124°45'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: KAM 1-14

Location and Access:

The KAM claims lie roughly 24 miles northwest of Summit Lake and 4 miles east of Cominco Lake. Access is by helicopter from either Summit or Cominco Lake.

History:

The claims were staked in the fall of 1972 and subsequently acquired by Golden Gate. No previous work has been done on the claims.

Description:

The property is underlain primarily by Devonian-Mississippian black clastics consisting of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967). Isoclinal folding is common; fold axes trend roughly northwest.

Current Work and Results:

In 1973, reconnaissance geochemistry and a reconnaissance magnetometer survey were carried out. Geochemical anomalies were outlined in northwest-trending zones. Weakly magnetic zones apparently correlated to some degree with the geochemical anomalies. Recommendations for further work included detailed geological mapping and an I.P. survey.

(96)TON	Lead, Zinc
Renton Management Limited	105 I 6
609 - 850 West Hastings Street	(62°27'N, 129°15'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: TON 1-16

Location and Access:

The TON claim group lies 8 miles north-northeast of Summit Lake, immediately west of the Canex Placer discovery. Helicopter from Summit Lake was the normal mode of access in 1973.

History:

The claims were staked in the fall of 1972 following the announcement by Canex Placer of a significant lead-zinc discovery in the area. No previous work has been reported.

Description:

The rocks underlying the property consist entirely of Lower Paleozoic sediments. Lowest in the sequence is a sequence of limestone and dolomite of Upper Cambrian to Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967) which outcrops on the northeast corner of the property. This sequence is overlain by black, cherty shale, tentatively correlated with the Road River Formation of Upper Ordovician age (Unit 10, G.S.C. Map 8-1967). The upper part of the sequence consists of shale, chert sandstone and chert-pebble conglomerate of Devono-Mississippian age (Unit 18b, G.S.C. Map 8-1967).

The property lies on the southwest limb of a northwest-trending anticlinal structure. Tight isoclinal folding is abundant.

Current Work and Results:

Geological mapping and soil geochemistry were conducted on the property in 1973. No lead-zinc sulphide minerals were reported in outcrop but a zone of significant lead-zinc geochemical anomalies were outlined roughly coincident with the Road River shale. Detailed geological mapping, plus additional soil and rock geochemistry have been recommended.

(97) ENVI	Lead, Zinc
Acheron Mines Limited	105 I 11
107 - 325 Howe Street	(62°31'N, 129°16'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: ENVI 1-40

Location and Access:

The claims are located 12 miles north of Summit Lake from which they can be reached by helicopter. The Canex Placer lead-zinc discovery is 4 miles to the southeast.

History:

The claims were located by A. Harman in November, 1972 and subsequently acquired by the present owners. No previous work on the property has been reported.

Description:

The property is underlain by Upper Cambrian sediments (Unit 7b, G.S.C. Map 8-1967) exposed in the anticlinal zone of a regional fold. The sequence consists mainly of wavy-banded, dark and light grey limestone with intercalated shale and siltstone. The structure is complex, being dominated by tight, isoclinal folds trending northwest. Other than pervasive disseminated pyrite, no sulphide mineralization has been observed.

Current Work and Results:

In 1973, geological mapping, plus rock and soil geochemical surveys were conducted on the property. A number of small discontinuous anomalies were outlined but were considered too small to be of interest. In addition, the strata were considered too low in the sequence to be favourable for the development of lead-zinc mineralized zones such as on the Canex Placer ground and no further work was recommended.

The property was subsequently returned to the original owners.

(98) BANK	Lead, Zinc
Colt Resources Limited	105 I 12
711 - 475 Howe Street	(62°35'N, 129°33'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: BANK 1-39

Location and Access:

The BANK group lies roughly 16 miles north-northwest of Summit Lake from which it is accessible by helicopter.

History:

The claims were staked in the fall of 1972 and subsequently acquired by the present owners. There has been no previous work on the claims reported.

Description:

The property appears to be underlain entirely by wavy-banded limestone of Cambrian to Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967).

Current Work and Results:

A reconnaissance stream silt geochemistry survey was conducted in 1973. The results were considered negative and no further work was recommended.

(99)ORE

Highland Mercury Mines Limited  
700 - 1177 West Hastings Street  
Vancouver 1, British Columbia

Lead, Zinc

105 I 6  
(62°21'N, 129°23'W)

Reference: G.S.C. Map 8-1967

Claims: ORE 1-66

Location and Access:

The ORE group lies along the southwest side of Summit Lake and extends to the northwest. Access is by fixed wing from either Ross River or Watson Lake to Summit Lake.

History:

The claims were staked in February, 1973 and subsequently acquired by the present owners. No previous work on the property has been reported.

Description:

The property is underlain almost entirely by wavy-banded limestone of Cambrian to Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967). The limestone occurs on the northeast limb of a northwest-trending anticline, with dips on the order of 45°-50° northeast.

Current Work and Results:

In 1973, geological mapping and soil geochemistry on the property were undertaken. No lead-zinc sulphides were found nor were any soil geochemistry anomalies outlined. The strata were considered to be lower stratigraphically than the lead-zinc mineralized zones on the Canex property and no further work was recommended.

(100)PRO

Consolidated Nicholson Mines Limited  
4900 - Toronto Dominion Centre  
Toronto, Ontario

Lead, Zinc

105 I 6  
(62°19'N, 129°28'W)

Reference: G.S.C. Map 8-1967

Claims: PRO 1-40

Location and Access:

The PRO group lies 3 miles southwest of Summit Lake from which it can be reached by helicopter.

History:

There is no record of any work on the property prior to the staking of the claims in February, 1973, subsequent to the discovery of lead-zinc occurrences by Canex Placer.

Description:

The underlying rocks are predominantly black shale and argillite (Unit 18b, G.S.C. Map 8-1967) with calcareous shale and limestone (Unit 7b, G.S.C. Map 8-1967) outcropping to the north. These rocks are on the north limb of a northwest-trending syncline.

Current Work and Results:

Geological mapping and a geochemical soil survey were undertaken in 1973. Scattered and isolated lead-zinc soil anomalies were outlined within a chert-shale sequence. Recommendations for further work included detailed geological mapping and rock geochemistry around the soil anomalies.

(101)CED	Lead, Zinc
Slocan Development Corporation Limited	105 I 11, 12
2002 - 1177 West Hastings Street	(62°32'N, 129°30'W)
Vancouver 1, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: CED 1-26

Location and Access:

The claims are located 13 miles north-northwest of Summit Lake. Helicopter from Summit Lake was the normal mode of access in 1973.

History:

The claims were staked in the winter of 1973-1974. No previous work on the property has been reported.

Description:

The underlying rocks consist of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967).

Current Work and Results:

Soil sampling in 1973 outlined a number of zinc anomalies apparently due to leaching from surrounding shales and not necessarily related to zinc sulphide mineralization. No further work was recommended.



(102) NAT	Lead, Zinc
Tay River Mines Limited	105 I 12
2002 - 1177 West Hastings Street,	(62°41'N, 129°52'W)
Vancouver 1, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: NAT 1-72

Location and Access:

The NAT group lies directly north of Cominco Lake, roughly 27 miles northwest of Summit Lake. Fixed wing aircraft from Watson Lake or Ross River can be landed on Cominco Lake.

History:

The NAT claims were staked in the rush following the discovery of lead-zinc occurrences by Canex Placer. No previous work is reported.

Description:

The claims lie within an extensive area underlain by shale, chert sandstone and chert-pebble conglomerate (Unit 18b, G.S.C. Map 8-1967).

Current Work and Results:

A number of zinc anomalies were outlined by soil sampling. These were considered to be due mainly to high background in underlying shales and not necessarily to sulphide mineralization. No further work was recommended.

(103) SUM, SAND, MIT	Lead, Zinc
Black Giant Mines Limited	105 I 6
2002 - 1177 West Hastings Street	(62°24'N, 129°20'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: SUM 1-36, SAND 1-24, MIT 1-48

Location and Access:

The SUM and SAND claims form a contiguous block roughly four miles north of Summit Lake. The MIT group lies immediately south of SUM and SAND groups north of the west end of Summit Lake. Access in 1973 was by helicopter from Summit Lake.

History:

The claims were staked subsequent to the discovery of significant lead-zinc mineralization by Canex Placer in the fall of 1972. No previous work on the properties has been

reported.

Description:

The oldest rocks in the area are vari-coloured slate and phyllite of Cambrian age or earlier (Unit 2, G.S.C. Map 8-1967). These are overlain by the wavy-banded limestone of Upper Cambrian-Lower Ordovician age (Unit 7b, G.S.C. Map 8-1967) and a thick sequence of shale, chert sandstone and chert-pebble conglomerate. On the SUM and SAND claims, a roughly east-west trending fault appears to have brought rocks of Unit 18b to the north in contact with Unit 2 rocks to the south. The MIT group is on the north limb of a westerly-plunging syncline.

Current Work and Results:

Field work in 1973 consisted almost solely of soil sampling. A number of zinc anomalies were outlined but these were generally scattered highs apparently unrelated to lead-zinc mineralization and no further work was recommended.

(103)YUK	Lead, Zinc
Spirit Explorations Limited	105 I 6
540 Howe Street, 3rd Floor	(62°22'N, 129°21'W)
Vancouver, British Columbia	

Reference: G.S.C. Map 8-1967

Claims: YUK 1-44, 46, 50-58, 65, 67, 69-70, 73, 75, 79-80

Location and Access:

The claims are situated across the north end of, and north of Summit Lake. Access is by fixed wing aircraft to Summit Lake from either Ross River or Watson Lake and then via helicopter to the property itself.

History:

The property was staked in February, 1973, and subsequently acquired by Spirit Explorations Limited.

Description:

The property is underlain mainly by black, locally calcareous shale (Unit 18b, G.S.C. Map 8-1967) underlain by limestone (Unit 7b, G.S.C. Map 8-1967). The rocks are isoclinally folded about a northwest-plunging axis. Aside from minor pyrite, no mineral occurrences were noted.

Current Work and Results:

Soil and rock geochemical sampling in 1973 failed to outline any significant lead or zinc anomalies.

(104) PAT

Acheron Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Lead, Zinc  
105 I 5  
(62°21'N, 129°40'W)

Reference: G.S.C. Map 8-1967

Claims: PAT 1-40

Location and Access:

The property lies 10 miles west of Summit Lake, from which it can be reached by helicopter. Summit Lake can be reached by fixed wing aircraft from Ross River or Watson Lake.

History:

The property was staked in February, 1973, 18 miles west-southwest of Canex Placer's lead-zinc discovery.

Description:

The property is underlain by Upper Ordovician-Silurian rocks consisting of red and black, locally graptolitic shale overlain by black chert (Unit 18b, G.S.C. Map 8-1967). No mineral occurrences, aside from minor pyrite were observed.

Current Work and Results:

Rock sampling carried out in 1973 failed to outline any significant lead or zinc anomalies.

Itsi Lakes

(105)FOX

Canex Placer Limited  
700 - 1030 West Georgia Street  
Vancouver, British Columbia  
V6E 3A8

Lead, Zinc  
105 J 16  
(62°45'N, 130°15'W)

Reference: G.S.C. Map 12-1961

Claims: FOX 1-48

Location and Access:

The FOX claims lie roughly 80 miles northeast of Ross River and 5 miles south of Itsi Lakes. Access in 1973 was by helicopter from Itsi Lakes or from the Canol Road at a point 15 miles northwest of the property.

History:

The property was first explored by Spartan Explorations Limited who conducted a reconnaissance stream geochemical survey in the area in 1968. In the spring of 1973 Spartan entered into an agreement with Canex Placer under which Spartan staked the ground and Canex agreed to evaluate the property.

Description:

The property is underlain by clastic sedimentary rocks of Lower Ordovician to Middle Silurian age (Unit 3, G.S.C. Map 12-1961). This sequence is comprised primarily of interbedded chert and shale but includes some limestone, quartzite and conglomerate. The sediments are intruded by coarse-grained, porphyritic quartz monzonite and granodiorite of Cretaceous age (Unit 11, G.S.C. Map 12-1961). Minor hornfels with pyrite occurs locally near the contacts. No lead-zinc occurrences have been observed.

Folding has occurred about northwest-trending axes. Two faults, one trending north-south and the other trending roughly east-west occur on the western end of the property.

Current Work and Results:

Field work in 1973 consisted of geological mapping and a geochemical soil survey; samples were analyzed for lead, zinc and cadmium. No lead-zinc mineralized zones were found during the geological mapping and no anomalies were recognized by the soil sampling.

(106) JOY, AJAX  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Tungsten  
105 J 9  
(62°41'N, 130°06'W)

Reference: G.S.C. Map 12-1961

Claims: JOY 1-48, AJAX 1-14

Location and Access:

The claims are situated in two adjacent blocks 90 miles northeast of Ross River and about 32 miles east of Sheldon Lake. Access in 1973 was by helicopter from Cominco Lake, 17 miles to the east.

History:

The area was originally staked as the SEAN group in 1969 by Newmont Mining Corporation who conducted only preliminary surveys before allowing the claims to lapse. Claims JOY 1-16 were staked in July, 1972 by J. Carson and the JOY 17-48 and AJAX 1-14 were recorded in July, 1973. Dynasty subsequently optioned the claims and explored the claims under an agreement between Dynasty, Atlas Explorations Limited, Shield Resources Limited and Numac Oil and Gas Limited.

Description:

The property is underlain by clastic sedimentary rocks of Lower Ordovician to Middle Silurian age (Unit 3, G.S.C. Map 12-1961). The sequence is poorly exposed and appears to consist mainly of shale with dolomitic beds and phyllite. The shales are locally phosphatic, variscite having been tentatively identified in a number of locations. The sediments are folded about north-west trending axes.

The sediments are intruded by a porphyritic quartz monzonite stock of Cretaceous age (Unit 11, G.S.C. Map 12-1961). This stock is about 1/4 mile in diameter but appears to underlie much of the sediments at shallow depths according to aeromagnetic data (Map 4402 G). The intrusive is marked by vertical joints trending approximately 010°, the faces of which are commonly greisenized. Fracture spaces in the altered granite are commonly filled with white quartz and accompanying scheelite.

The contact zone surrounding the intrusive consists of slightly rusty, hornfelsed shales and minor skarnified limestone. Pyrrhotite and traces of chalcopyrite, pyrite and fluorite occur locally in the hornfelsed shales and traces of scheelite are associated with diopsidic skarn.



Current Work and Results:

Reconnaissance geochemical sampling and geological mapping along with some detailed prospecting were carried out in August, 1973. Follow-up work, conducted later in August and September, consisted of detailed soil sampling and geological mapping.

Geochemical anomalies in general tended to be spot highs associated with erratic scheelite distribution. Two high grade samples of greisen from the altered intrusive ran 0.26 per cent  $WO_3$  and 1.60 per cent  $WO_3$  respectively. However, a sample over 30 feet representing a zone of closely spaced joints ran 0.06 per cent  $WO_3$ . The results were not considered attractive enough for further work and return of the claims to J. Carson was recommended.

COAL MINING AND EXPLORATION

WHITEHORSE MINING DISTRICT

(107) Teslin Exploration Limited	Coal
Box 8592, Station "F"	115 I 1
Calgary, Alberta	(62°05'N, 136°15'W)

References: Dawson (1887); Cairnes (1910); Bostock (1936)

Licences: Territorial Coal Exploration Licenses No. 15, 16, 17.

Location and Access:

The licenced areas form a contiguous block in the vicinity of Carmacks, 100 miles north of Whitehorse. Licences 15 and 16 are north of Carmacks and east of the Yukon River. Licence 17 is immediately east of Carmacks and mainly on the south side of the Yukon River. A good, one-mile tote road leaving the Klondike Highway at Mile 107.7 provided access for the drilling on Licence 15. The Klondike Highway crosses Licence 16, from which a 3.5 mile road connects to the Five Finger Mine area. The access road to Licence 17 leaves the Klondike Highway at Mile 100.5 but is only passable by four-wheel drive vehicles during freeze-up.

History:

Occurrences of coal that were later mined at the Five Finger and Tantalus Mines were first noted by Dawson in 1887. The Five Finger Mine was staked in 1898 and operated intermittently from 1905 to 1908. The Tantalus Mine, staked in 1903, operated from 1904 to 1922, and produced roughly 7,000 tons of coal per year. The Tantalus Butte Mine was opened in 1923 and continued supplying coal to the Carmacks and Dawson areas and the United Keno Hill Mines at Elsa until 1967. From 1969 to the present it has been supplying coal to the Anvil Mine near Faro for heating purposes and concentrate drying.

In 1971 Teslin Exploration drilled an exploratory hole roughly a mile south of the Five Finger Mine. The hole was stopped in bad ground and the top 600 feet of the Laberge Formation was not drilled. A hole was also drilled one mile south of the Tantalus Mine and intersected 5 thin seams of coal in the Laberge Formation.

Description:

The area underlain by the licences consists of rocks of the Jurassic-Lower Cretaceous Laberge Series and Tantalus Formation. The Laberge Series (Unit 5, Bostock, 1936) consists of sandstone and fine conglomerate with intercalated shale and coal. The Tantalus Formation (Unit 6, Bostock, 1936) is characterized by conglomerate with minor sandstone, shale and coal. Both units are tightly folded along

northwest-trending axes and are intruded and overlain by volcanic rocks of the Carmacks Series. Exposure of the coal-bearing units is poor owing to extensive glacial and alluvial cover.

#### Current Work and Results:

In September, a one-mile road was constructed from Mile 107.7 on the Klondike Highway to provide access to a drill site on Licence 15. Two holes were subsequently drilled on Licence 15 and one on Licence 17. Coal partings and lenses up to 0.3 feet wide were observed in all the sediments on Licence 15. The drill hole on Licence 17 cut 10.4 feet of coal (Teslin seam).

In addition to the drilling, an induced polarization (I.P.) survey and an electromagnetic (EM 16) survey were conducted across known coal seams in the Carmacks area. The results indicated slight response to EM 16, but no detectable response to I.P. The conductivity of the coal is thought to be due to residual moisture in the coal.

(108) TANTALUS BUTTE MINE	Coal
Anvil Mining Corporation Limited	115 I 1
Box 1000	(62°08'N, 136°16'W)
Faro, Yukon Territory	

References: Bostock (1936, pp. 59-62); Wheeler (1961, p. 74); Green (1966, pp. 121-122); Findlay (1967, p. 88; 1969a, p. 15; 1969b, pp. 66-67); Craig and Laporte (1972, pp. 155-156).

Lots and Leases: Leases 2955, 2959; Lots 23, 24

#### Location and Access:

The mine and storage facilities are located on the north bank of the Yukon River approximately four miles north of the community of Carmacks and less than one-half mile from the Whitehorse-Mayo road.

#### History:

The mine began operation in 1923, supplying coal to Carmacks and Dawson and the mill at United Keno Hill Mines, Elsa until 1967. From 1969 on the mine has been operated by Anvil Mining Corporation Limited. The coal is back hauled by the concentrate trucks on their return to the Anvil Mine where the coal is used for plant heating and concentrate drying.

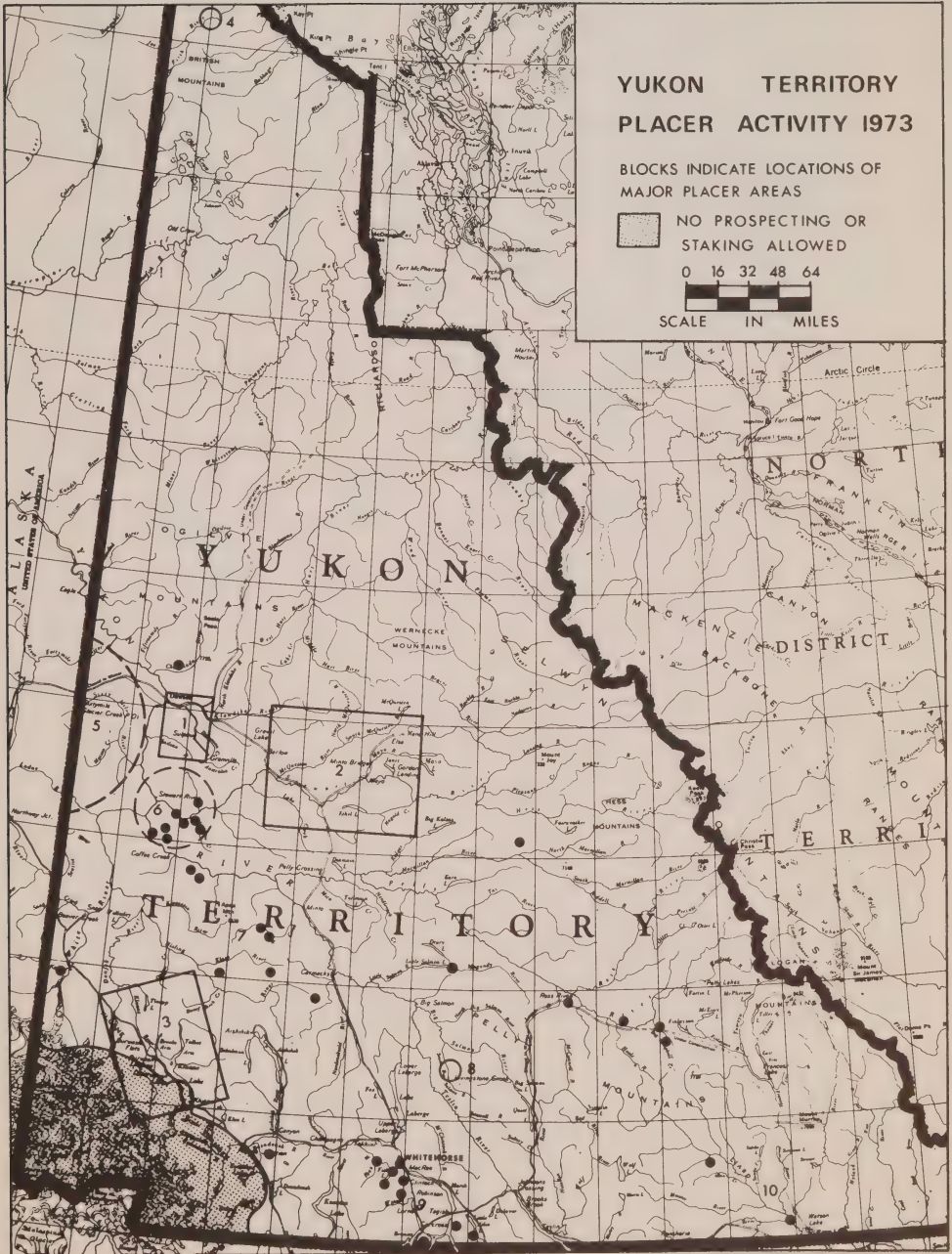
#### Description:

The coal occurs in the Tantalus Formation of Upper Jurassic (?) and Lower Jurassic age, consisting of conglomerate with lesser amounts of sandstone, shale and a few coal

seams (Bostock, 1936, p. 74). The main seam ranges from 8 to 20 feet thick, strikes north and dips from 45° to 70° west. The seam is displaced by northeast-trending, south-east-dipping faults. The coal is a high volatile bituminous with calorific value ranging from 11,000 to 12,700 BTU. Samples are agglomerating with a swelling index of 1 (ASTM) and are not suitable for making metallurgical grade coke (Green, 1966, p. 124).

Current Activities:

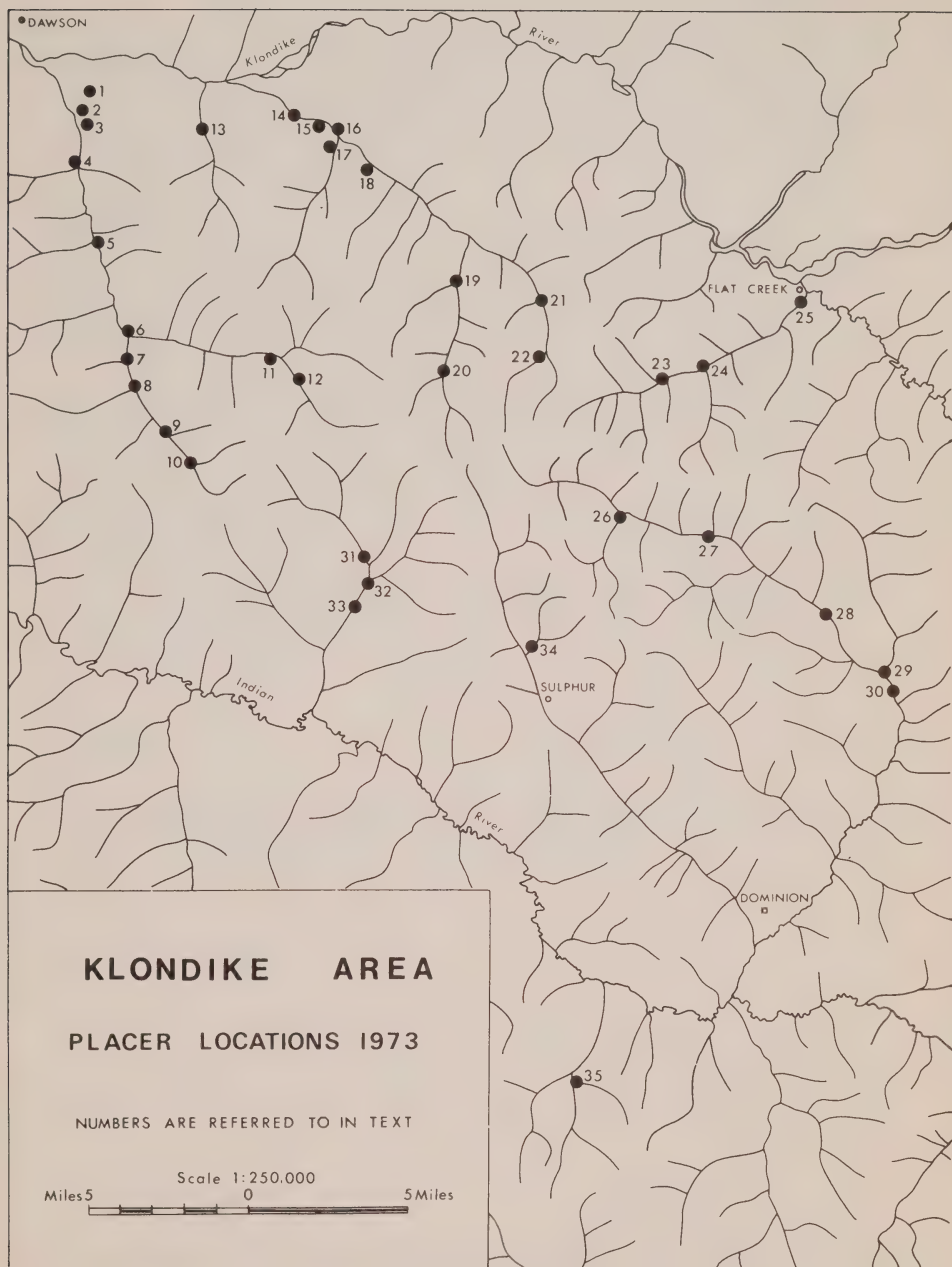
During 1973 the mine was operated at a rate of 78 tons per day for a total production of 19,601 tons. Exploration in the area included surface and underground geological mapping and 6 underground diamond drill holes totalling 966 feet.





General Areas of Placer Activity 1973

1. KLONDIKE (See larger scale map)
2. MAYO-MCQUESTEN (See larger scale map)
3. KLUANE (See larger scale map)
4. FIRTH
5. FORTY-MILE-SIXTY-MILE-LADUE
6. STEWART RIVER
7. DAWSON RANGE
8. LIVINGSTONE
9. WHITEHORSE
10. LIARD



PLACER OPERATIONS - KLONDIKE 1973

- |   |  |
|---|--|
| 1. G. Heitmann                          | 20. M. Crockett                        |
| 2. P. Foth                              | 21. J. Erickson, H. Leidtke            |
| 3. C. Nicholson                         | 22. P. Erickson, D. Gritzka            |
| 4. S. Berg                              | 23. S. Prohaszka                       |
| 5. J. and R. Archibald                  | 24. A. & N. Burgleman                  |
| 6. A. and D. Fry                        | 25. K and S Placers                    |
| 7. S. Rivers                            | 26. A. & N. Burgleman                  |
| 8. A. & H. England, D. Werner,<br>et al | 27. A. Sailer                          |
| 9. G. Caley                             | 28. Ballarat Mines Ltd.                |
| 10. J. Lamontagne                       | 29. Black Creek Mining Ltd.            |
| 11. F. Perret                           | 30. I. Norback                         |
| 12. J. Langevin; Borrecco, et al        | 31. Hunker Placers                     |
| 13. J. Fraser; F. Chapil; A. Hill       | 32. R. and L. Mining Co.               |
| 14. Hunker Placers                      | 33. Ballarat Mines Ltd.                |
| 15. Miben Mining Co.                    | 34. R. Gibson                          |
| 16. F. Schneider                        | 35. Black Creek Mining Ltd;<br>L. Ross |
| 17. I. Bremner                          | 36. A. Sinkowicz,<br>D. Kreuger        |
| 18. A. Kosuta                           | 37. W. Boyne                           |
| 19. O. Lunde                            |  |

All properties not shown.

By late 1973, practically all potential placer ground in the area had been staked as claims or prospecting leases.

- (1) G. Heitmann 116 B 3  
Jackson Gulch (64°02'N, 139°21'W)

This operator, working at Jackson's Gulch on the Klondike, did testing and preparation work for the 1974 season. Using a D-8 bulldozer he stripped 1,500 cubic yards of White Channel Bench gravels. The gravels here are 150 feet thick, with only the bottom 6 feet containing significant amounts of gold.

- (2) P. Foth 116 B 3  
Trail Gulch (64°01'N, 139°22'W)

Mr. Foth conducted a part-time hand operation on Trail Gulch bench gravels using a rocker and recovered a few ounces of gold.

G. Berglund, who also had a rocker operation, did minor drifting on bedrock below the White Channel gravel face.

- (3) C. Nicholson 116 B 3  
Trail Hill (64°01'N, 139°22'W)

C. Nicholson mined on Trail Hill above Bonanza Creek operating with a bulldozer-sluice system, using water pumped from Bonanza Creek.

- (4) S. Berg 116 B 3  
Sourdough Hill (64°00'N, 139°22'W)

This operator, using a D-7 bulldozer and water pumped from Bonanza Creek, stripped 3,000 cubic yards of muck 10 to 15 feet thick and sluiced 2,000 cubic yards of gravel from a section averaging 10 feet thick.

- (5) J. and R. Archibald 115 0 14  
Mosquito Gulch (63°58'N, 139°20'W)

Early in the season the Archibald brothers mined bench gravels on Bonanza Creek below Mosquito Gulch using a bulldozer and water pumped from Bonanza Creek. Later in the season they stripped and mined creek gravels on the east side of the valley using a 4-inch diameter monitor.

- (6) A. and D. Fry 115 0 14  
Grand Forks (63°55'N, 139°18'30"W)

References: Green (1966, pp. 94-95); Findlay (1967, p. 75; 1969a, p. 75; 1969b, p. 55); Craig and Laporte (1972, p. 144)

These operators worked creek gravels at the site of the former town of Grand Forks at the confluence of Bonanza and Eldorado Creeks. Two bulldozers (a D-7 and a D-8) were used to strip 50,000 cubic yards of black muck up to 30 feet deep. Using sluice water ditched at a low head from Bonanza Creek, approximately 7,000 cubic yards of gravel were sluiced in 1973.

- (7) S. Rivers 115 0 14  
Irish Gulch (63°54'N, 139°19'W)

Mr. Rivers operated on a part time basis using a bulldozer on Eldorado Creek near Irish Gulch.

- (8) A. and H. England, D. Werner, et al 115 0 14  
Eldorado Creek (63°52'N, 139°18'W)

- (9) C. Caley 115 0 14  
Eldorado Creek (63°52'N, 139°16'W)

Mr. Caley, working part time during the 1973 season mined one cut 150 feet by 50 feet using a D-7 bulldozer. 4,200 cubic feet of muck up to 23 feet thick was stripped and 400 cubic yards of pay gravel, 2 feet thick, was sluiced.

- (10) J. Lamontagne 115 0 14  
Eldorado Creek (63°51'N, 139°15'W)

Reference: Craig and Laporte (1972, p. 147)

During the 1973 season, this operator working on Eldorado Creek below Chief Gulch, stripped 28,000 cubic yards using two D-6 bulldozers. Much of the material sluiced was thin-bedded quartzite and schist bedrock, most gravels having been mined previously. One tailings pile left by a previous operator was sluiced and yielded about 100 ounces of gold.

- (11) F. Perret 115 0 14  
Bonanza Creek (63°55'N, 139°13'W)

During the 1973 season, this operator, working with an automatic gate for stripping and a TD18 bulldozer for feeding the sluice, mined on upper Bonanza Creek below the mouth of Victoria Gulch. He stripped 2,200 cubic yards of black muck averaging 10 feet thick and sluiced 900 cubic yards of gravel 3 to 5 feet thick to recover 63 crude ounces of gold.



- (12) J. Langevin 115 0 14  
Victoria Gulch - Bonanza (63°54'N, 139°12'W)

Minor stripping and sluicing were done using a small John Deere bulldozer. These creek gravels have been previously worked.

and

- E. Borrecco 115 0 14  
Victoria Gulch - Bonanza (63°54'N, 139°12'W)

For part of the season, this operator shovelled into his sluice boxes by hand.

- (13) J. Fraser; F. Chapil; A. Hill 116 B 3  
Bear Creek (64°01'N, 139°15'W)

This operator working on Bear Creek, in preparation for later mining, stripped 2 feet of overburden from 30,000 square feet, exposing the lower muck for further thawing. No sluicing was done.

- (14) Hunker Placers 116 B 3  
B. Bratsberg ( 64°01'N, 139°09'W)  
Hunker Creek

This operator stripped and sluiced creek gravels on lower Hunker Creek during the 1973 season. Production figures are not available.

- (15) Miben Mining Limited 116 B 3  
Dago Hill (64°00'30"N, 139°06'W)

This company owned and operated by M. Stutter and B. Warnsby, holds 32 bench claims on the west side of Dago Hill on the left limit of Hunker Creek 2 1/2 miles above the mouth. 1973 was the first year of production; the 1972 season being spent assembling equipment and testing ground.

Mining is essentially an hydraulic operation with a vertical turbine pump providing 230 feet of head, in series with a horizontal turbine pump providing 130 feet of head. Volume is 4,500 gallons per minute. Each pump is driven by twin Jimmy diesel engines. With this system the operators are able to move 125 cubic yards of gravel per hour to the steel sluice box. About 80 per cent of the gravel is moved by the monitor; the remaining, near-bedrock material, is moved to the sluice with a D-6 bulldozer. Gravel is 45 to 90 feet thick, all of which is sluiced. Gold occurs throughout the section, fine in the upper part, coarse near bedrock. 1973 production was 384 crude ounces gold from 100,000 cubic yards gravel overlying 3,000 bedrock square feet.

- (16) F. Schneider 116 B 3  
Hunker Creek (64°01'N, 139°07'W)

This operator mined for part of the season near the confluence of Hunker and Last Chance Creeks, using a front-end loader and water pumped from Hunker Creek.

- (17) I. Bremner 116 B 3  
Last Chance Creek (64°00'N, 139°07'W)

Reference: Craig and Laporte (1972, p. 148)

Mr. Bremner works entirely with a hydraulic system using water ditched from five miles upstream on Last Chance Creek. A 10-inch diameter pipe conveys the water to the 4-inch monitor at a 50-foot head. The White Channel gravels are approximately 50 feet deep on this left limit bench above Last Chance Creek. During the 1973 season Mr. Bremner and one helper mined 18,000 cubic yards for a total production of approximately 165 ounces.

- (18) A. Kosuta 116 B 3  
Hunker Creek (64°00'N, 139°05'W)

Reference: Craig and Laporte (1972, p. 146)

The property is located on Eighty Pup, a left limit tributary of Hunker Creek immediately above Last Chance Creek.

Using a D-6 bulldozer and diesel pumps, this operator stripped 3,500 cubic yards and sluiced an additional 3,500 cubic yards. Production was 127 ounces.

- (19) Mr. and Mrs. O. Lunde 115 0 15  
Gold Bottom Creek (63°57'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, pp. 11-12); Green and Godwin (1963, pp. 49-50; 1964, p. 60); Green (1965, p. 60; 1966, pp. 98-99); Findlay (1967, p. 77; 1969a, pp. 99-100; 1969b, p. 58); Craig and Laporte (1972, p. 145).

This couple worked on Gold Bottom Creek at Soda Creek. Using a D-7 bulldozer and automatic gate they stripped some 15,000 cubic yards of muck up to 20 feet thick, maintaining stripping 2 years in advance of the sluicing operations. 4,500 cubic yards of pay gravels to 3 feet thick and the top 2 feet of bedrock, here decomposed schist, were sluiced to recover 260 ounces of fine and coarse gold.

- (20) M. Crockett 115 0 15  
Gold Bottom Creek (63°55'N, 138°59'W)

References: Skinner (1961, p. 10; 1962, pp. 11-12);  
Green and Godwin (1963, p. 50; 1964, pp.  
60-61); Green (1965, p. 60; 1966, p. 99);  
Findlay (1967, p. 77; 1969a, p. 100; 1969b,  
p. 58); Craig and Laporte (1972, p. 145).

Working on Gold Bottom Discovery claim, the operator stripped 7 feet of muck and 5 feet of barren gravel from 92,000 square feet (40,000 cubic yards) mainly with a D-8 bulldozer, but in part by ground sluicing. The pay streak is thin, averaging 2 feet thick and 7,000 cubic yards of gravel were sluiced.

- (21) J. Erickson and H. Leidtke 115 0 15  
Hunker Creek (63°56'N, 138°54'W)

J. Erickson, with partner H. Leidtke, worked claim 1 above Discovery, on Hunker Creek, opposite Mint Gulch. They stripped 20,000 cubic yards of black muck, some of it 35 feet thick, largely by ground sluicing. Using bulldozer and front-end loader the operators sluiced about 400 cubic yards of gravel from which they recovered 110 ounces of coarse and fine gold. Most of the ground was mined previously by underground methods and some rich pillars were left.

- (22) P. Erickson and D. Gritzka

This is a part-time operation on the right fork of Hunker Creek. P. Erickson, assisted by D. Gritzka, stripped some 1,000 yards of muck 8 to 12 feet thick using a combination of D-8 bulldozer and pump driven monitor. The operators then sluiced 200 cubic yards of gravel, which is up to 3 feet thick, and recovered 71 ounces of coarse gold. Most of this area has been worked previously by hand methods.

- (23) S. Prohaska 115 N 15  
Bedrock Creek (63°58'N, 140°55'W)  
Allgold Creek 115 0 15  
(63°53'N, 138°47'W)

Mr. Prohaska worked claims on Bedrock Creek (63°58'N, 140°55'W) a left limit tributary of Sixtymile River. Using a D-7 bulldozer he stripped 16,000 cubic yards of muck, sluiced 3,000 cubic yards of gravel and trenched a 700 foot long bedrock drain.

On Allgold Creek (63°53'N, 138°47'W) the same operator stripped a 2 foot layer of muck from 30,000 square feet (2,000 cubic yards) in preparation for mining in the 1974 season.

- (24) Mr. and Mrs. A. Burgleman  
Dominion Creek

115 O 15  
(63°50'N, 138°49'W)

Reference: Craig and Laporte (1972, p. 146).

This couple worked on Caribou Creek, a right limit tributary of Dominion Creek, stripping 3,000 cubic yards of muck 5 to 6 feet deep, and bulldozing a 1,000 foot bedrock drain, which involved moving 6,000 cubic yards of material. No sluicing was done in the 1973 season, the above being preparation for future mining. Mr. and Mrs. Burgleman also constructed a tote trail from near Hunker Summit to their lease on Allgold Creek.

- (25) K and S Placers  
M. Kinakin  
Allgold Creek

115 O 15  
(63°56'N, 138°37'W)

References: Skinner (1962, p. 14); Green and Godwin (1963, p. 56; 1964, p. 66); Green (1965, pp. 63-64; 1966, pp. 103-104); Findlay (1967, p. 79; 1969a, p. 103; 1969b, p. 60); Craig and Laporte (1972, p. 147).

Working alone with a D-7 bulldozer, M. Kinakin stripped 27,000 cubic yards from the right limit of Allgold Creek and 1,800 cubic yards on bench claims above the highway. On claims 6 and 7 A/D, 5,000 cubic yards were processed using bulldozer and steel sluice-box. Recovery was approximately 350 ounces.

- (26) Mr. and Mrs. A. Burgleman

See Klondike Placer Operation (24).

- (27) Mr. and Mrs. A. Sailer  
Dominion Creek

115 O 15  
(63°48'N, 138°43'W)

References: Green (1965, p. 62; 1966, p. 102); Findlay (1967, p. 79; 1969a, p. 102; 1969b, p. 60); Craig and Laporte (1972, p. 149).

These operators mined Dominion Creek below Nevada Creek, stripping 30,000 cubic yards of overburden and sluicing 12,000 cubic yards of gravel using a D-6 bulldozer.

(28) Ballarat Mines Ltd.  
Quartz Creek

115 O 14  
(63°47'30"N, 139°06'W)

References: Skinner (1961, p. 10; 1962, p. 10); Green and Godwin (1963, pp. 47-48; 1964, pp. 53-56); Schmidt (1964); Green (1965, pp. 56-57; 1966, pp. 89-91); Findlay (1967, pp. 72-73; 1969a, pp. 92-93; 1969b, p. 55); Craig and Laporte (1972, p. 143).

This company, owned and managed by Mrs. H. Schmidt, worked the Quartz Creek property during the early part of the season using a bulldozer for feeding the sluice and mechanical tailings stacker.

On August 31, operations were moved to Dominion Creek where some sluicing was done. (115 O 15, 63°50'N, 138°45'W)

(29) Black Creek Mining Ltd.  
Dominion Creek

115 O 15  
(63°46'N, 138°32'W)

These operators, at the mouth of Jensen Creek, ran trials on their experimental washing plant. The machine consists of a mobile inclined steel ramp on which an 18" endless belt conveys gravel to a height of approximately 25 feet above ground level. At this point the gravel is subjected to high-pressure water jets on a Tyler shaker screen. Coarse material is thus discarded and fines return by gravity through a series of sluice boxes on the ramp. Gravels are excavated by a power shovel which dumps into a hopper feeding the conveyor belt. All power is diesel-electric.

Production and volume figures were not available.

(30) I. Norback  
Dominion Creek

115 O 15  
(63°46'N, 138°31'W)

References: Findlay (1969a, p. 101; 1969b, p. 59); Craig and Laporte (1972, p. 146).

This operator mined on Dominion Creek using a TD-18 bulldozer. After many years operating as a placer miner, Mr. Norback sold his claims and equipment to Mr. W. Hakonson of Dawson City at the end of the 1973 season.

(31) Hunker Placers

See Klondike Placer Operation (14).



- (32) R. and L. Mining Co. 115 O 14  
J. Lacross and W. Rasmussen (63°48'N, 139°04'W)  
Quartz Creek

J. Lacross and W. Rasmussen, on Quartz Creek at Little Blanche Creek, stripped 80,000 cubic yards of muck up to 24 feet deep using a D-9 bulldozer and a dragline with a 3 cubic yard bucket. They sluiced some 30,000 cubic yards of gravel. Recovery was fine gold.

- (33) Ballarat Mines Ltd.

See Klondike Placer Operation (28).

- (34) R. Gibson 115 O 15  
Sulphur Creek (63°47'N, 138°54'W)

R. Gibson, working claims on Friday Gulch, a left limit tributary of Sulphur Creek, stripped 45,000 cubic yards of muck using a bulldozer and a ground sluicing technique. The muck is 10 to 12 feet thick. The operator sluiced 10,000 cubic yards of pay gravel which is one to four feet thick. Most of the gold is coarse, with one 2 ounce nugget being recovered during the 1973 season.

- (35) Black Creek Mining Ltd. 115 O 10  
L. Ross (63°35'N, 138°52'W)  
Eureka Creek

Two men operated a bulldozer-steel sluice program for part of the season near the forks of Eureka Creek.

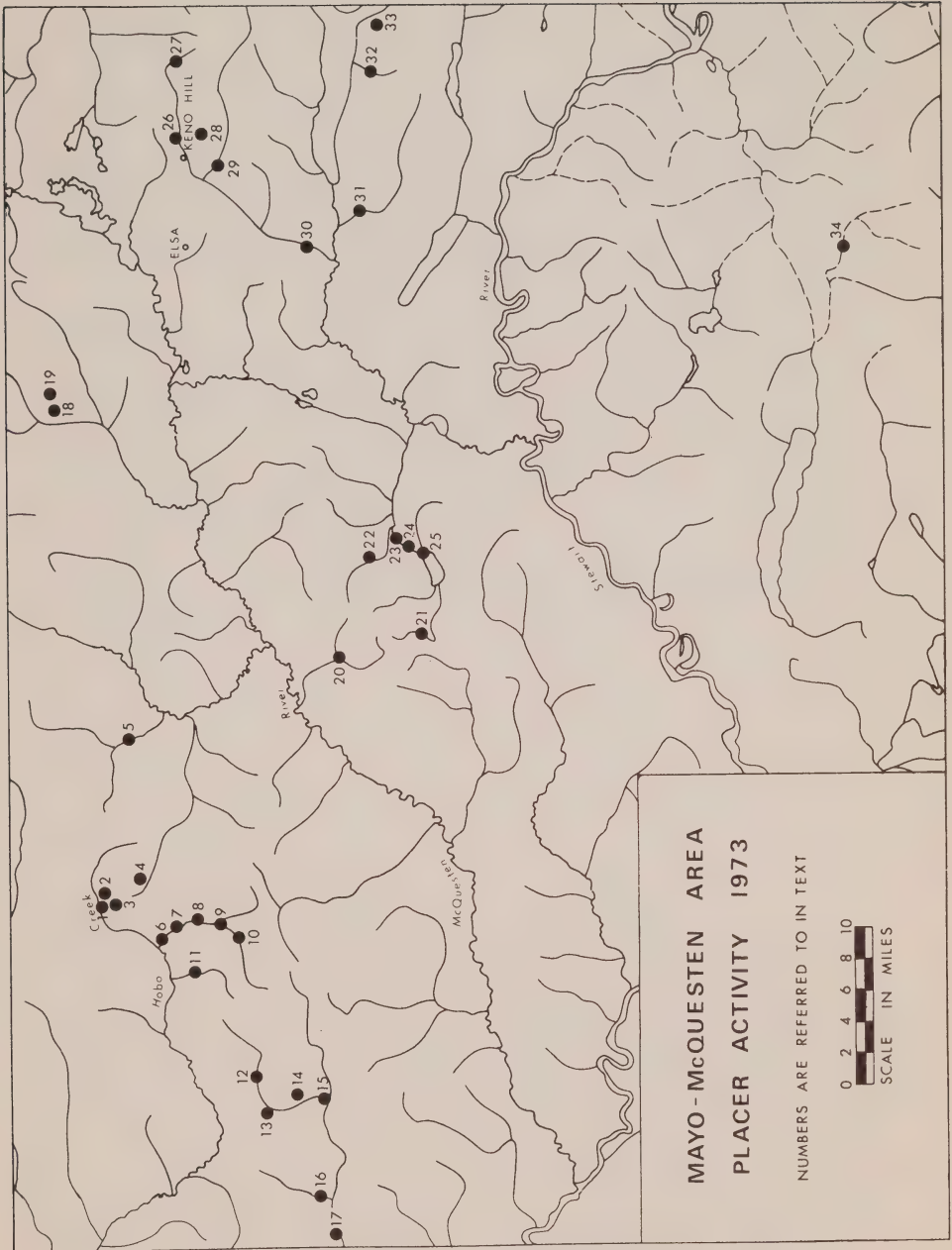
Production and volume figures were not available.

- (36) A. Sinkowicz and D. Kreuger 115 O 10  
Lower Sulphur Creek (63°41'N, 138°43'W)

These men sunk eight shafts by hand on the left limit of Sulphur Creek near Mile 43, using a portable steam boiler. Only 5 or 6 ft. of muck overlies the White Channel gravels in this area. The deepest shaft was 40 feet.

- (37) W. Boyne 115 O 14  
Quartz Creek (63°46'N, 139°07'W)

Mr. Boyne drove a short drift on the right limit of Quartz Creek immediately below the mouth of Calder Creek.



PLACER OPERATIONS - MAYO-MCQUESTEN 1973

- |                       |                         |
|-----------------------|-------------------------|
| 1. D. Bernier         | 18. Darron Placers      |
| 2. H. Klassen         | 19. H. Honing et al     |
| 3. A. Genier          | 20. C. and C. Klippert  |
| 4. R. and J. Grant    | 21. A. McDiarmid        |
| 5. E. Friesen         | 22. E. Bleiler          |
| 6. M. McIntyre        | 23. G. Heitmann         |
| 7. C. Waterman        | 24. J. Gmitrowicz       |
| 8. A. Aho             | 25. F. Erl              |
| 9. S. Rousseau        | 26. J. Todd             |
| 10. H. Ball et al     | 27. P. Todd             |
| 11. D. Genier         | 28. Bardusan Placers    |
| 12. W. Malicky et al  | 29. K. Djukastein et al |
| 13. W. Scott          | 30. F. Taylor           |
| 14. V. Norby          | 31. A. Pelland          |
| 15. L. Loge           | 32. A. and G. Moritz    |
| 16. C. Ames           | 33. L. Wozniak          |
| 17. T. Thompson et al | 34. A. Henney           |

(1)D. Bernier

(2)H. Klassen

(3)A. Genier

(4)R. and J. Grant  
Gem Creek

115 P 15  
(136°49'N, 63°57'W)

Some testing was done on a lease on Gem Creek, a left limit tributary of Sprague Creek.

(5)E. Friesen

(6)M. McIntyre

(7)C. Waterman

(8)A. Aho

(9)S. Rousseau

(10)H. Ball et al

(11)D. Genier

(12)W. Malicky et al

(13)Clear Creek Gold Mines  
W. Scott  
Clear Creek

115 P 14  
(63°48'N, 137°16'W)

W. Scott, L. Loge and V. Norby used a D-8 bulldozer to strip ground and did other preparatory work on Left Clear Creek in the vicinity of ground partially dredged in the mid 1940's. Some sluicing was done to recover approximately 150 ounces of gold.

(14)Clear Creek Gold Mines  
V. Norby  
Clear Creek

115 P 14  
(63°48'N, 137°16'W)

See Mayo-McQuesten Placer Operation (13).

- (15) Clear Creek Gold Mines  
L. Loge

115 P 14  
(63°48'N, 137°16'W)

See Mayo-McQuesten Placer Operation (13).

- (16) C. Ames

- (17) T. Thompson et al

- (18) Darron Placers  
Dublin Gulch

106 D 4  
(64°02'N, 135°50'W)

References: Skinner (1961, p. 14; 1962, p. 17); Green and Godwin (1963, pp. 59-60; 1964, pp. 76-77); Green (1965, pp. 72-73; 1966, pp. 112-113); Findlay (1967, p. 83; 1969a, p. 107; 1969b, p. 63); Craig and Laporte (1972, p. 151).

R. Holway and D. Duensing, assisted by one or two men, washed 35,000 cubic yards on the left limit of Dublin Gulch, a tributary of Haggart Creek, on claims previously mined by F. Taylor.

A grizzly-protected sluice was fed by a 2 1/2 cubic yard front-end loader, from gravel excavated by a D-7E bulldozer. Little stripping was done and most of the 30 feet of gravels was sluiced. Chief problems were large boulders, tailings disposal, and fouling of sluice riffles by scheelite.

Production was approximately 750 ounces.

- (19) H. Honing and F. Levi  
Dublin Gulch

106 D 4  
(64°02'N, 135°49'W)

These operators spent part of the season testing ground at Stewart Pup on Dublin Gulch and running performance trials on a trommel-type recovery plant of their design.

Gravels are 15 to 20 feet deep, poorly sorted, and contain many large boulders and talus. The abnormally high scheelite content presents gold recovery problems.

- (20) Klippert Brothers  
Johnson Creek

115 P 16  
(63°50'N, 136°20'W)

The Klipperts, working on Johnson Creek, a left limit tributary of McQuesten River, stripped 3,000 cubic yards of overburden from 6,000 square feet, using a caterpillar 977 front-end loader. Work was in preparation for future mining, only minor sluicing being done to test the ground. Average overburden is 14 feet, beneath which lies 3 feet of gold-bearing gravels.



(21) A. McDiarmid

(22) E. Bleiler  
Highet Creek

115 P 16  
(63°50'N, 136°20'W)

References: Skinner (1961, pp. 15-16; 1962, p. 19); Green and Godwin (1963, pp. 60-61; 1964, pp. 78-79); Green (1965, pp. 73-76; 1966, pp. 113-114); Findlay (1967, pp. 83-84; 1969a, p. 108; 1969b, pp. 63-64); Craig and Laporte (1972, p. 151).

Mr. Bleiler mined on the left limit of Highet Creek during the 1973 season. A 12-inch diameter pipe provides an 80-foot head to the 4-inch monitor. The gravel bank, approximately 30 feet high, is undercut and the gravel swept into the sluice by the monitor. Bleiler made three cuts during the season, totalling 15,000 bedrock square feet, and sluiced approximately 15,000 cubic yards of gravel.

(23) G. Heitmann  
Minto Creek

115 P 9  
(63°42'N, 136°08'W)

This operator, working a bench above Minto Creek, one mile north of Minto Lake, sluiced 1,000 cubic yards of gravel, average thickness 8 feet, using a highway scraper and D-8 bulldozer. Recovery was poor and operation was abandoned.

(24) J. Gmitrowicz  
Minto Creek

115 P 9  
(63°40'N, 136°04'W)

Mr. Gmitrowicz, working on Minto Creek below Minto Lake, stripped 330 yards of overburden.

(25) F. Erl  
Highet Creek

115 P 9  
(63°42'N, 136°09'W)

Mr. Erl, on Highet Creek, used a D-8 bulldozer to strip 4,800 cubic yards of overburden in preparation for later mining.

(26) J. Todd

(27) P. Todd

(28) Bardusan Placers Ltd.  
Thunder Gulch

105 M 14  
(63°55'N, 135°15'W)

References: Findlay (1969a, pp. 111-112; 1969b, pp. 64-65); Craig and Laporte (1972, p. 151).

H. Barchan, mining on Thunder Gulch, a tributary of Lightning Creek, stripped 10,000 cubic yards of slide rock overburden and sluiced 10,000 cubic yards of gravel 15 to 20 feet deep, using a D-6 bulldozer. He prepared a bedrock drain at the mouth of Thunder Gulch using a 3/4 yard power shovel. Of the gold recovered, 80 per cent is coarse, jewelry grade material. Silver-bearing galena is abundant in the heavy mineral fraction in this placer to the extent that it complicated gold recovery.

(29) K. Djukastein et al

(30) F. Taylor

(31) A. Pelland  
Davidson Creek

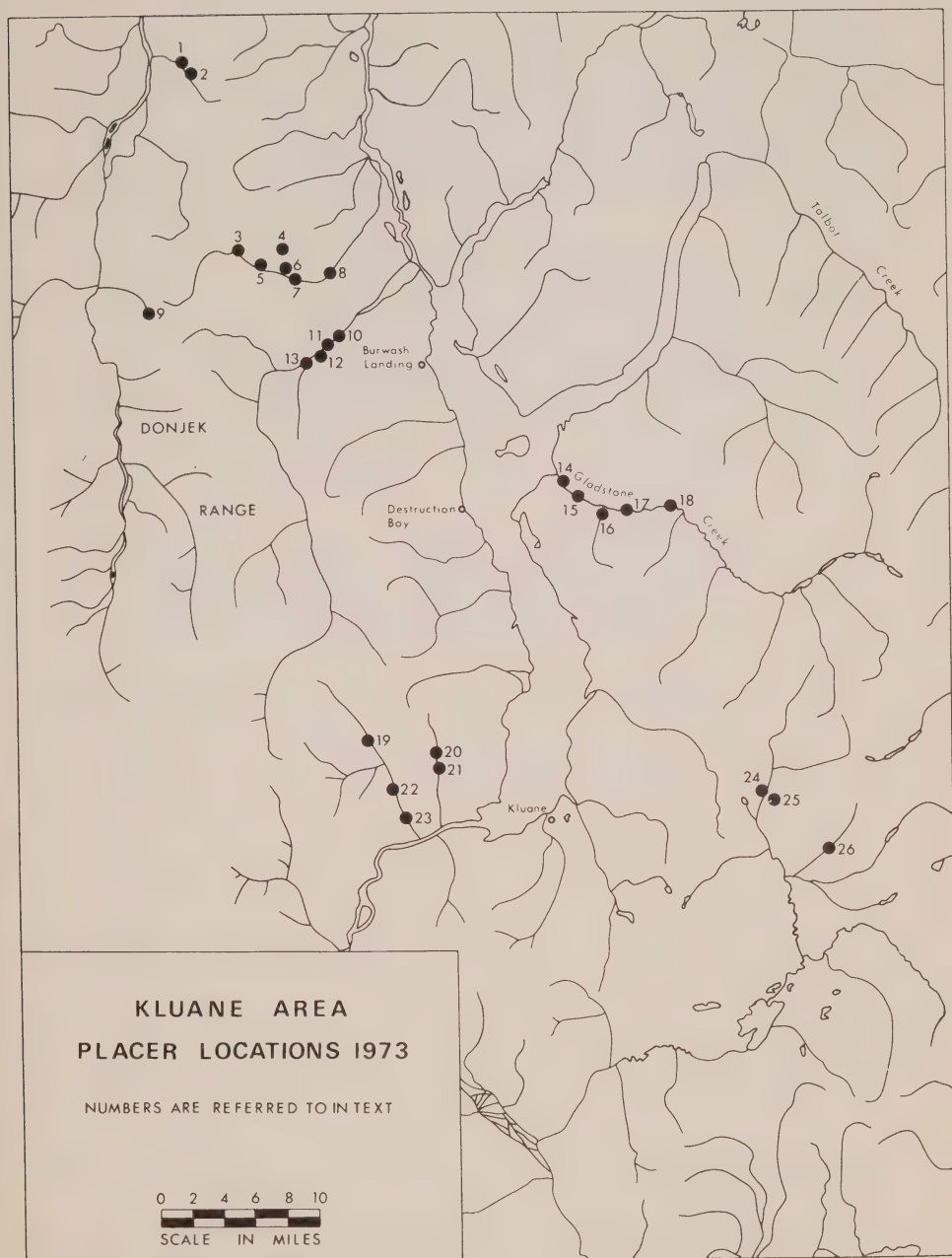
105 M 14  
(63°46'N, 135°42'W)

Mr. Pelland mined on Davidson Creek, a left limit tributary of Mayo River. Using a bulldozer, Mr. Pelland stripped 2,000 cubic yards of overburden.

(32) A. and G. Moritz

(33) L. Wozniak

(34) A. Henney



PLACER OPERATIONS - KLUANE AREA 1973

- |                            |                         |
|----------------------------|-------------------------|
| 1. R.O. Davis              | 14. W. Brewster, et al  |
| 2. J. Cox                  | 15. A. Zastre           |
| 3. Cooper Creek Mining Co. | 16. D. Brannigan, et al |
| 4. W. Rothbauer            | 17. P. Southwicke       |
| 5. H. Fromme               | 18. A. Dickson          |
| 6. Burwash Mining Co.      | 19. E. Cox              |
| 7. W. Wyatt                | 20. A. Osborne          |
| 8. E. Harris, G. Klein     | 21. L. Bur              |
| 9. Moraine Gold Mines Ltd. | 22. E. Smith            |
| 10. S. McCallum            | 23. H. Fromme, et al    |
| 11. G. McCallum            | 24. T. Churchill        |
| 12. J. LeMoignan           | 25. E. Churchill        |
| 13. B. LeMoignan           | 26. L. Frantz, et al    |

- (1) R.O. Davis 115 G 5  
Arch Creek (61°30'N, 139°42'W)

Davis, assisted by one or two men, mined creek gravels downstream from the "natural arch". A 3/4 cubic yard P and H backhoe was used to feed the sluice. Additional equipment included two bulldozers and a gasoline rock drill for breaking boulders. Gravels are about 14 feet deep and contain many large boulders and talus. Major access road repairs were effected and an airstrip was constructed in the Donjek Valley.

- (2) J. Cox 115 G 5  
Arch Creek (61°30'N, 139°40'W)

This operator reportedly worked on his lease above the "arch", but was hindered by extremely high water and mechanical break downs. The property was not visited.

- (3) Cooper Creek Mining Co. 115 G 6  
Burwash Creek (61°22'N, 139°25'W)

F. Lefever and E. McDonald used a front-end loader to feed gravels from the right limit of Burwash Creek into a steel dump box equipped with a grizzly. Sluice water is conveyed from upstream via a 10-inch steel pipeline.

- (4) W. Rothbauer 115 G 6  
Tatamagouche Creek (61°24'N, 139°21'W)

This operator used a bulldozer to strip and test ground on a one mile lease of R. Holway's.

- (5) H. Fromme

- (6) Burwash Mining Company Limited 115 G 6  
Tatamagouche Creek (61°23'N, 139°19'W)

H. Besner and crew operated in the canyon of Tatamagouche using bulldozers and a diesel shovel. Mr. Besner has mined in the immediate area since 1945. No figures on production are available for the 1973 season.

- (7) W. Wyatt 115 G 6  
Burwash Creek (61°22'N, 139°18'W)

This miner used a front-end loader to feed his sluice from right limit gravels.



(8) E. Harris, G. Klein

(9) Moraine Gold Mines Ltd.

(10) S. McCallum

(11) G. McCallum

(12) J. LeMoignan 115 G 6  
Squirrel Creek - Duke River (61°20'N, 139°10'W)

Drilling was done in shallow gravels after "freeze-up"  
using a small portable churn drill.

(13) B. LeMoignan

(14) W. Brewster, et al

(15) A. Zastre

(16) D. Brannigan 115 G 7  
Cyr Creek (61°18'N, 138°34'W)

Minor bulldozer stripping and testing were done by  
D. Pring et al on leases located on Cyr Creek, a left limit  
tributary of Gladstone Creek.

(17) P. Southwicke

(18) A. Dickson

(19) E. Cox

(20) A. Osborne

(21) L. Bur

(22) E. Smith

(23) H. Fromme, et al

- (24) T. Churchill 115 G 1  
Fourth of July Creek (61°10'N, 138°03'W)

Work consisted of building an access road, an airstrip, and bulldozer trenching to locate gravel benches.

- (25) E. Churchill

- (26) L. Frantz, H. Rastetter, R. Seeh 115 H 4  
Ruby Creek (61°07'N, 137°53'W)

These miners used a suction dredge and hand-shovelling methods to produce a few ounces of flour gold. Mercury was used in the riffles to aid recovery.

PLACER OPERATIONS - FIRTH 1973

- (1) J. Johnson
- (2) R. Parkes
- (3) L. Woznica

- (1) J. Johnson 117 C 1  
Firth River (69°10'N, 140°09'W)

This operator used a 3" suction dredge to pick up gravel from natural riffles occurring in the Canyon below Sheep Creek. Abnormally high water hindered the operation so some testing was done on the left limit bench. Minor gold recovered was in small, well-worn, flattened pieces. No earthmoving machinery has been brought into the Firth River area.

- (2) R. Parkes 117 C 1  
Sheep Creek (69°10'N, 140°09'W)

This operator reportedly tested left limit gravels near the confluence of Sheep Creek and Firth River using hand methods.

- (3) L. Woznica 117 C 1  
Firth River (69°10'N, 140°09'W)

Hand testing was done on the left limit adjacent to J. Johnson's operation.

PLACER OPERATIONS - FORTY-MILE-SIXTY-MILE-LADUE 1973

- (1) G. La Roche
- (2) J. Sestak
- (3) Glacier Creek Placers
- (4) J. Lynch
- (5) W. Yaremicio

- |                        |                     |
|------------------------|---------------------|
| (1) <u>G. La Roche</u> | 115 N 15            |
| Sixtymile River        | (63°56'N, 140°42'W) |
|                        | Approximately       |

Mr. La Roche with two partners sank a shaft on a Sixtymile bench near the mouth of Miller Creek.

- |                                 |                     |
|---------------------------------|---------------------|
| (2) <u>J. Sestak</u>            | 115 N 9             |
| Tenmile Creek - Sixtymile River | (63°36'N, 140°04'W) |

Mr. Sestak reportedly carried out a bulldozer sluicing operation on the lower part of the creek. The property was not visited.

- |                                  |                     |
|----------------------------------|---------------------|
| (3) <u>Glacier Creek Placers</u> | 116 C 2             |
| L. Grimard and E. Faucher        | (64°02'N, 140°46'W) |
| Dawson City, Yukon Territory     |                     |

Reference: Craig and Laporte (1972, p. 149).

During 1973 these partners worked with two D-6 bulldozers to strip 30 feet of muck from 10,000 bedrock square feet (10,000 cubic yards) from a left limit bench of Glacier Creek. Two feet of gravel lying on an irregular surface of andesite bedrock were sluiced (800 cubic yards). Most of the gold recovered was coarse, jewelry-grade material.

Gillespie Construction, using a D-8 bulldozer, stripped muck from claims belonging to Glacier Creek Placers, on the south side of Glacier Creek upstream from the 1973 production workings.

- |                     |                     |
|---------------------|---------------------|
| (4) <u>J. Lynch</u> | 116 C 2             |
| Glacier Creek       | (64°02'N, 140°53'W) |

References: Green (1965, p. 67); Findlay (1969a, p. 105; 1969b, p. 61); Craig and Laporte (1972, p. 150).

Mr. Lynch, operating on Glacier Creek, upstream from Glacier Creek Placers, mined only a small part of the 1973 season. He uses a 10 inch by 12 inch diesel driven pump

and 3 1/2 inch monitor for hydraulicking muck. With this system he stripped up to 40 feet of the overburden from 6,000 square feet (7,000 cubic yards). Using a D-7 bulldozer Mr. Lynch sluiced 6 feet of pay gravels and the top foot of schistose bedrock, a total of 1,300 cubic yards.

(5) W. Yaremicio  
Sixtymile River

115 N 15  
(63°59'N, 140°47'W)

This operator works below Miller Creek mouth on a Sixtymile left limit bench. Using a monitor, sluice, D-8 bulldozer and pump Mr. Yaremicio stripped 7,500 cubic yards of muck up to 10 feet deep, and sluiced 3,000 cubic yards of gravel and underlying, decomposed, clay-rich bedrock to produce 300 crude ounces of gold. The bench, as exposed in 1973, was 100 feet wide and 300 feet long. The exposed section consisted of 4 feet of slide-rock, 6 to 8 feet of muck and 4 feet of pay gravel above the decomposed bedrock.

Mr. Yaremicio is preparing ground above and below his present location on a similar position on the hillside. The ground does not appear to have been worked in the past except in the gulch upstream. The heavy minerals fraction from the sluice, as well as magnetite and gold, contains galena, cinnabar, scheelite, and hematite.



PLACER OPERATIONS - LIVINGSTONE 1973

- (1) G. Asuchak
- (2) T. Ames, E. Hill

(1) <u>G. Asuchak</u>	105 E 8
<u>Lake Creek</u>	(61°22'N, 134°20'W)

This operator used an HD 5 loader and a monitor under a 60 ft. head to produce approximately 20 ounces of coarse gold. In addition, some stripping of bench gravels was done on Summit Creek using a D4 bulldozer.

(2) <u>T. Ames, E. Hill</u>	105 E 8
<u>Lake Creek</u>	(61°22'N, 134°20'W)

Stripping, testing and some sluicing were done using an International loader/back hoe. The creek gravels are overlain by 10 ft. to 15 ft. of glacial till containing many large boulders. Approximately ten ounces of coarse gold were recovered.

Fineness of Yukon Placer Gold

This incomplete list was compiled from Geological Survey of Canada reports, gold-buyer's lists and personal communications with placer miners.

Since fairly wide ranges of purity exist even on relatively small creeks, this list may be used as a guide only.

Figures tabulated are in fineness: i.e. - parts per 1000 of pure gold; the remainder is usually silver, with minor amounts of base metals. To calculate the value of contained gold multiply the fineness by the current price of refined gold: e.g. - Allgold Creek, 860 x \$150.=\$129. per ounce of raw gold. The unweighted average fineness of this list is 800 and the range is from 605 to 946. (In 1905, the average fineness of approximately 500,000 ounces shipped from the Klondike area was 775.)

A name in parentheses following the creek refers to the main drainage system to aid in location on the map.

FINENESS OF YUKON PLACER GOLD

<u>KLONDIKE AREA</u>	<u>RANGE</u>
Adams Gulch (Bonanza)	615 - 746
American Hill (Bonanza)	864
Allgold (Klondike R.)	860
Bear (Klondike R.)	644 - 726
Bonanza - upper (Klondike R.)	809 - 827
Bonanza - middle (Klondike R.)	781
Bonanza - lower (Klondike R.)	739 - 798
Bonanza - discovery (Klondike R.)	762
Boulder (Bonanza)	800
Claffey Pup (Quartz)	750
Caribou (Dominion)	816 - 840
Cheechako (Bonanza)	750 - 785
Dago Hill (Hunker)	798 - 859
Dominion - upper (Indian R.)	810
Dominion - lower	847
Dominion - middle	817 - 835
Eighty Pup (Hunker)	797
Eldorado (Bonanza)	633 - 783
Eureka (Indian R.)	677 - 727
French Gulch (Eldorado)	631 - 676
Gay Gulch (Eldorado)	780
Gauvin Gulch (Bonanza)	664

Gold Bottom (Hunker)	780 - 800
Gold Run (Dominion)	848 - 860
Gold Hill (Eldorado)	768
Goring (Klondike R.)	738
Henry Gulch (Hunker)	605 - 650
Homestake (Bonanza)	663
Hunker (Klondike)	701 - 859
Hunker - Right Fork	802 - 804
Hunker - Upper	798 - 859
Hunker - Mouth	701 - 726
Indian R. (Yukon R.)	843
Irish Gulch (Eldorado)	624 - 742
Jackson Gulch (Klondike R.)	829 - 842
King Solomon Hill (Bonanza)	785 - 800
Last Chance (Hunker)	683 - 832
Lombard Pup (Dominion)	860
Lovett Gulch (Bonanza)	808 - 836
Little Blanche (Quartz)	658
Montana (Indian R.)	770
Monte Cristo (Bonanza)	784 - 796
Mint Gulch (Hunker)	851
Oro Grande (Eldorado)	775
Paradise Hill (Hunker)	735 - 802
Quartz (Indian R.)	732 - 784
Skookum (Bonanza)	605
Sulphur (Dominion)	797 - 821
Trail Hill (Bonanza)	800 - 805
Victoria Gulch (Bonanza)	807 - 820

#### SIXTYMILE AREA

Big Gold (Sixtymile R.)	854
Glacier (Sixtymile R.)	830 - 860
Fortymile R. (Yukon R.)	814 - 820
Matson (Sixtymile R.)	775
Miller (Sixtymile R.)	827 - 857
Moose (Fortymile R.)	855
Poker (U.S. Side) (Fortymile R.)	873
Sixtymile R. (Yukon R.)	808
Tenmile (Sixtymile R.)	830 - 845

#### STEWART R. AREA

Ballarat (Yukon R.)	852
Barker (Stewart R.)	793 - 900
Black Hills (Stewart R.)	750 - 855
Henderson (Yukon R.)	725 - 730
Independence (Stewart R.)	780 - 794
Kirkman (Yukon R.)	860 - 896
Mariposa (Scroggie)	900
Stewart R. (Yukon R.)	837 - 850
Scroggie (Stewart R.)	900 - 905
Thistle (Yukon R.)	848 - 895
Canadian (Yukon R.)	864 - 883

MAYO-MCQUESTEN AREA

Anderson (Mayo R.)	720 - 728
Clear (McQuesten R.)	828 - 860
Davidson (Mayo R.)	840
Dublin Gulch (McQuesten R.)	860 - 923
Duncan (Mayo R.)	792 - 802
Haggart (McQuesten R.)	885 - 895
Highet (Mayo R.)	832 - 845
Johnson (McQuesten R.)	760 - 820
Ledge (Mayo R.)	808 - 820
Lightning (Mayo R.)	830
Minto (Mayo R.)	827 - 835
Steep (Mayo R.)	931 - 946
Thunder Gulch (Lightning)	790 - 825

KLUANE AREA

Burwash (Kluane R.)	871 - 876
Bullion (Slims R.)	871

BIG SALMON AREA

Lake (S. Big Salmon R.)	895
Livingstone (S. Big Salmon R.)	880

Reports accepted for assessment credit - 1973

Coordinates and N.T.S.	Property, Company and Author	Date	Work
60-20-127-25 95 D 6	MEL, JEAN Granby Mining Co. Ltd. E.D. Chisholm	20/11/73	Geol, Geochem
60-31-127-57 95 D 12	PORKER Hyland Joint Venture A.R. Archer	15/11/73	Geol, Geochem
60-01-130-31 105 B 1	L, LOLA C.C. Curlett H. Laanela, J. Foster Irwin	9/73	Geol, Geochem
60-00-30- 135-18-30 105 D 3	RIDGE Jorex Ltd. and Dome Expl. (Canada) Ltd. J.R. Woodcock Consultants Ltd.	9/73	Geol
60-38-135-05 105 D 11	GENO Whitehorse Copper Mines Ltd. R.A. Hureau	8/73	Geol, Mag survey
61-01-133-40 105 F 4	AG El Paso Mining and Milling Co. B. Taylor	6/74	Geol, Geochem
61-25-130-07 105 G 8	FETISH Finlayson Joint Venture A.R. Archer	15/11/73	Geol, Geochem
61-32-131-33 105 G 12	HO-HO South Yukon Joint Venture A.R. Archer	10/ 5/73	Geol, Geochem
61-46-130-15 105 G 16	IRENE Vestor Expl. Ltd. Say Lee Kuo	7/73	Geol, Geochem
61-15-128-38 105 H 2,7	RIETA, WO Pan Ocean Oil Ltd. J.S. Vincent	13/ 9/73	Geol, Geochem
62-21-129-40 105 I 5	PAT Acheron Mines Ltd. and Cream Silver Mines Ltd. D.P. Taylor	11/73	Geol, Geochem



Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-30-129-30 105 I 5, 6, 11, 12	GULL, PAS, PREVO Dynasty Explorations Ltd. P. Dean	1/73	Geol, Geochem
62-30-129-37 105 I 5, 12	TAP Dynasty Explorations Ltd. Colin I. Godwin	11/73	Geol, Geochem
62-19-129-28 105 I 6	PRO Consolidated Nicholson Mines Ltd. D.P. Taylor	24/10/73	Geol, Geochem
62-21-129-23 105 I 6	ORE Highland Mercury Mines Ltd. D.P. Taylor	8/11/73	Geol, Geochem
62-22-129-21 105 I 6	YUK Spirit Exploration Ltd. D.P. Taylor	5/11/73	Geol, Geochem
62-23-129-23 105 I 6	MIT Black Giant Mines Ltd. Robert W. Nusbaum	8/ 1/74	Geochem
62-26-129-15 105 I 6	SAND Black Giant Mines Ltd. Robert W. Nusbaum	25/ 1/74	Geochem
62-26-129-16 105 I 6	SUM Black Giant Mines Ltd. Robert W. Nusbaum	29/ 1/74	Geochem
62-27-129-15 105 I 6	TON Renton Management Ltd. R. Darney & G. Gutrath	8/73	Geol, Geochem
62-28-129-17 105 I 6	ROSS Cream Silver Mines Ltd. D.P. Taylor	19/10/73	Geol, Geochem
62-28-129-15 105 I 6, 11	MAD Noranda Exploration Co. Ltd. P.M. McAndless, J.D. Knaver G.E. Diron	12/73	Geol, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-29-129-14	PAS Dynasty Explorations Ltd.	10/73	Geol, Geochem
105 I 6, 11	John D. Curry		
62-30-129-20	NESS Noranda Exploration P.M. McAndless J.D. Knauer G.E. Dirom	12/73	Geol, Geochem
105 I 6, 11			
62-31-129-24	KAY Noranda Exploration Co. Ltd. P.M. McAndless J.D. Knauer G.E. Dirom	12/73	Geol, Geochem
105 I 6, 11			
62-31-129-16	ENVI Acheron Mines Ltd. D.P. Taylor	11/73	Geol, Geochem
105 I 11			
62-34-129-27	GULL Dynasty Explorations Ltd. John D. Curry	10/73	Geol, Geochem
105 I 11			
62-33-129-24	DYN Dynasty Explorations Ltd. Colin I. Godwin	10/73	Geol, Geochem
105 I 11			
62-33-129-23	DEA Dynasty Explorations Ltd. Colin I. Godwin	10/73	Geol, Geochem
105 I 11			
62-32-62-37 129-27-129-45	UN, TROIS, PELL, CINQ Vestor Exploration Ltd. Douglas D. Campbell	2/73	Geol
105 I 11			
62-32-62-37 129-27-129-45	UN, NOR, PELL, TROIS Vestor Explorations Ltd. N. Badham	8/73	Geol, Geochem
105 I 11			
62-35-129-22	LEA Makao Development Co. Ltd. D.P. Taylor	16/10/73	Geol, Geochem
105 I 11			
62-35-129-29	DON Canex Placer Ltd. B. Ainsworth	summer 73	Geochem
105 I 11			

Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-38-129-44	CED Slocan Development Corp. Ltd.	18/12/73	Geochem
105 I 11	Robert W. Nusbaum		
62-35-129-31	NOR, BEA DOP, LEA Makao Development Co. Ltd.	11/ 5/73	Geol
105 I 11, 12	R.J. Cathro		
62-34-129-31	ANNIV Canex Placer Ltd.	8/73	Geochem
105 I 12	B. Ainsworth		
62-36-129-34	NOR BEA, DOP Makao Development Co. Ltd.	16/10/73	Geochem
105 I 12	D.P. Taylor		
62-30-129-45	POS L. Hart	24/10/73	Geochem
105 I 12	R.S. Adamson		
62-30-129-45	FOS L. Hart	28/10/73	Geochem
105 I 12	R.S. Adamson		
62-36-129-47	BET Noranda Exploration Co. Ltd. G.E. Dirom P.M. McAndless	8/73	Geol, Geochem
105 I 12	J.D. Knauer		
62-38-129-45	KAM Golden Gate Exploration Ltd.	10/73	Mag, Geochem
105 I 12	Victor Zachanko		
62-39-129-50	BEV Cominco Ltd.	27/11/73	Geol, Geochem
105 I 12	Ken R. Pride		
62-43-129-33	AT Morris Black	20/12/73	Geochem
105 I 12	Robert W. Nusbaum		
62-44-129-55	NAT Tay River Mines Ltd.	18/12/73	Geochem
105 I 12	Robert W. Nusbaum		
62-34-129-45	TAM Dynasty Explorations	11/73	Geochem
105 I 12	Colin I. Godwin		
62-35-129-45	MTX NRD Mining Co. Ltd.	9/10/73	Geochem
105 I 12	R.S. Adamson		

Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-35-129-45	MTX NRD Mining Co. Ltd.	9/10/73	Geol
105 I 12	R.S. Adamson		
62-35-129-45	SAM L. Hart	19/10/73	Geochem
105 I 12	R.S. Adamson		
62-36-129-30	PB Tanzilla Exploration Ltd.	21/11/73	Geochem
105 I 12	P.H. Sevensma		
62-37-129-40	PREVO Dynasty Explorations Ltd.	10/73	Geol, Geochem
105 I 12	John D. Curry		
62-41-130-06	JOY, AJAX Dynasty Explorations Ltd.	11/73	Geol, Geochem
105 J 9	Colin I. Godwin		
62-45-130-15	FOX Sparton Explorations Ltd.	7/73	Geol, Geochem
105 J 16	J.M. Kowalchuk		
62-46-130-11	MS Dynasty Explorations Ltd.	12/73	Geochem
105 J 16	Colin I. Godwin		
62-13-133-06	SEA, MOR, SINK, GALE, DY, PEA, BP, DP, SUN Anvil Mining Corp. Ltd.	8/73	Turam E.M.
105 K 2, 3, 6	Peter E. Walcott		
62-18-133-00	HOHO, BRAM Dynasty Explorations Ltd.	8/73	E.M., Ground Mag
105 K 3	T.J. Adamson		
62-25-133-45	ROTO, LORNA, GRAN, JEAN, ARO Dynasty Explorations Ltd.	24/ 8/73	Turam E.M.
105 K 5	Michael Lewis		
62-20-133-20	KO Cream Silver Mines Ltd. Belmoral Mines Ltd.	1973	Geol
105 K 6	F. Holcapak		
62-22-132-51	LISA Ridgemont Mining Corp.	9/73	Geol
105 K 7	P.F. Lewis, J.G. Simpson		

Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-26-132-52	JAN Ridgemont Mining Corp. G.A. Jilson	8/73	Geochem
105 K 7	J.G. Simpson		
62-35-133-17	DANA Ridgemont Mining Corp. G.A. Jilson	7/73	Geochem
105 K 11	J.G. Simpson		
62-52-133-12	JON Ridgemont Mining Corp. G.A. Jilson	8/73	Geochem
105 K 11	J.G. Simpson		
63-55-135-17	GALAXY United Keno Hill Mines Ltd. Terry Levicki	28/ 5/74	Geol, Geochem
105 M 14	D.P. Walli		
63-35-132-05	PLATA Dynasty Explorations Ltd.	3/73	Geol
105 N 9	J.S. Brock		
63-40-132-02	PLATA Dynasty Explorations Ltd.	12/72	Geol, Geochem, E.M., DDH, Trench
105 N 9	W.J. Roberts		
63-40-132-02	PLATA Dynasty Explorations Ltd.	1/73	Geol, Geochem, E.M., DDH, Trench
105 N 9	W.J. Roberts, P. Lane		
63-15-130-15	SLATE S. Belzberg	11/73	Mag Survey
105 O 8	Donald W. Tulley		
63-17-130-05	KEN # 1 Tyee Lake Resources Ltd. & Titan-Polaris Mines Ltd.	8/73	Geol, Geochem
105 O 8	Bacon & Crowhurst Ltd.		
64-25-132-55	CYR, FXE, ED, PB, ZN, CYP Cypress Resources Ltd.	9/73	Geol
106 C 7	G.C. Gutrath		



Coordinates and N.T.S.	Property, Company and Author	Date	Work
64-25-132-30	Goz Creek Property Barrier Reef Resources Ltd. J.W. Stollery	summer 73	Geol, Geochem
106 C 7, 8	C. Michael Hamilton		
64-08-134-58	CLARK Scurry-Rainbow Oil Ltd. M.J. Lewis	9/ 4/73	Geol, Geochem, I.P., Grav., DDH
106 D 2, 3	P.J. Fominoff		
64-08-134-58	CLARK Scurry-Rainbow Oil Ltd.	9/ 4/73	Geol
106 D 2, 3	D.C. Malcolm		
64-08-134-58	CLARK Scurry-Rainbow Oil Ltd.	9/ 4/73	Geol, Geochem, I.P., Grav, DDH,
106 D 2, 3	D.C. Malcolm		Trenches
65-00-134-02	D.I.T. Minex Development Ltd.	8/73	Geol
106 D 16	J. Sullivan		
61-47-140-46	Silver City Property Silver City Mines Ltd.	7/ 2/73	I.P. Survey, DDH
115 F 15	Wm. V. Smitheringale		
61-40-138-20	BIR, RIB Canadian Occidental Petroleum Ltd. Mineral Division	8/73	Geol, Geochem, Ground Mag
115 G 9	N. Saracoglu		
61-30-137-05	ASH Canadian Occidental Petroleum Ltd. Mineral Division	28/ 8/73	Geol, Geochem
115 H 3	A.M. Seanor		
61-34-137-38	HATCH, THATCH Canadian Occidental Petroleum Ltd. Mineral Division	7/73	Geol, Geochem, Ground Mag
115 H 12	N. Saracoglu		
62-08-136-15	Yukon Terr. Coal Lic. 15, 16, 17 Teslin Exploration Ltd.	11/73	DDH
115 I 1	M.P. Phillips		
62-08-137-20	RICO AEX Minerals Corp.	summer 73	Geochem
115 I 3	A.E. Aho		
62-08-137-20	RICO AEX Minerals Corp.	5/74	Mag Survey
115 I 3	A.E. Aho		

Coordinates and N.T.S.	Property, Company and Author	Date	Work
62-18-136-39 115 I 7	WET Minto Mining Ltd. Ashton W. Mullan	11/73	Mag. Survey
62-34-137-13 115 I 11	DARK Klondike Explorations Ltd. G.H. Rayner	16/ 1/74	Geochem
62-41-137-15 115 I 11	NAVAJO Tay River Mines Ltd. Robert W. Nusbaum	21/ 1/74	Geochem
62-38-137-12 115 I 11	SUN United Keno Hill Mines Ltd. A. Beavan and R.T. Heard		Geol, Geochem
62-37-137-05 115 I 11	COIN Taseko Mines Ltd. G.A. Dirom		Geol, Geochem
62-36-137-19 115 I 11	COMANCHE Yukon Gold Placer Ltd. and Pinnacle Mines Ltd. A.R. Archer		Geol, Geochem
62-40-137-09 115 I 11	ROD Northair Mines Ltd. A.R. Archer		Geol, Geochem
62-41-137-15 115 I 11	NAVAJO Black Giant Mines Ltd. Robert W. Nusbaum	17/ 1/74	Geochem
62-56-138-31 115 J 15	"C" claims Silver Standard Mines Ltd. R.C. McMichael	2/73	Geol, Geochem, E.M.
63-40-139-08 115 O 11	MAC, RAY, TOM Andac Resources Ltd. T.E. Lisle	9/73	Geol
63-50-136-45 115 P 15	TED Quintana Minerals Corp. Clyde L. Smith	8/72	Geol, Geochem, Ground Mag
64-15-137-55 116 A 5	AS, GH Belmoral Mines Ltd. J. Needoba	7/73	Geol
64-29-140-44 116 C 7	ADD D. Reinke and J. Needoba J. Needoba, F. Holcapek	9/73	Geol, Geophys

Coordinates and N.T.S.	Property, Company and Author	Date	Work
64-29-140-56	RH Minas de Cerro Dorado Ltd. J. Needoba	7/73	Geol, Geophys
116 C 7	F. Holcapek		
64-18-140-12	JO Caley Property	10/72	Feasibility Report
116 C 8	Melrose Consultants Ltd.		
Reports accepted under N.M.F.A. - 1973			
60-33-60-45	Whitehorse Copper	3/74	Geol, DDH
134-53-135-10	Belt Whitehorse Copper Mines Ltd.		I.P. Survey
105 D 10, 11	A. Hureau		
62-30-129-30	NAH	9/73	Geol, Geochem
105 I 5, 6, 11, 12	Dasson Copper Corp. S.C. Farquharson		
62-25-133-45	ROTO, LORNA, GRAN, JEAN, ARO Dynasty Explorations Ltd.	12/73	Linecutting, Ground Mag, Turam E.M.
105 K 5	T.J. Adamson		
64-00-30- 135-38-30	JAY Belmoral Mines Ltd.	25/10/73	Geol
106 D 4	F. Holcapek		
64-15-137-55	AS, GH Belmoral Mines Ltd. R.H.D. Philp	8/73	Geol
116 A 5	J. Needoba		
64-29-140-56	RH Minas de Cerro Dorado Ltd. J.C. Needoba,	9/73	Geol, Mag Survey
116 C 7	F. Holcapek		
65-10-139-10	BEAR Inexco Mining Co.	summer 73	Geol, Geochem
116 G 3	John R. O'Donnell		
66-10-140-10	MINK Inexco Mining Co.	7/73	Geol, Geochem, Mag, E.M.
116 K 1	John R. O'Donnell		

SELECTED BIBLIOGRAPHY

- Aho, A.E.  
1966: Exploration methods in Yukon with special reference to Anvil District; paper presented to Northern Resources Conference, Whitehorse, Y.T., March 1966; Western Miner, April 1966, pp. 127-148.
- Allan, J.F. and Findlay, A.  
1972: Study of the MacMillan tungsten deposit; paper presented to Northern Resources Conference, Whitehorse, Y.T., April, 1972.
- Archer, A.R. and Main, C.A.  
1970: A geochemical discovery of an unglaciated Arizona-type porphyry; paper presented to International Geochemical Symposium, Toronto, Ont., April, 1970.
- Blusson, S.L.  
1966: Frances Lake map-area; Geol. Surv. Can., Map 6-1966.
- Blusson, S.L. and Tempelman-Kluit, D.J.  
1970: Operation Stewart, Y.T. and District of MacKenzie. Report of Activities, Geol. Surv. Can., Paper 70-1, part A.
- Bostock, H.S.  
1936: Carmacks District, Yukon; Geol. Surv. Can., Mem. 189.  
  
1941: Mining Industry of Yukon, 1939 and 1940, Geol. Surv. Can., Mem. 234.  
  
1947: Mayo map-area; Geol. Surv. Can., map 890A.  
  
1964: McQuesten map-area; Geol. Surv. Can., Map 1143 A.
- Bostock, H.S. and Lees, E.J.  
1938: Laberge map-area, Yukon; Geol. Surv. Can., Mem. 217.
- Boyle, R.W.  
1956: Geology and geochemistry of silver-lead-zinc deposits of Keno Hill and Sourdough Hill, Y.T., Geol. Surv. Can., Paper 55-30.  
  
1957: The geology and geochemistry of the silver-lead-zinc deposits of Galena Hill, Y.T.; Geol. Surv. Can., Paper 57-1.  
  
1965: Geology, geochemistry, and origin of the lead-zinc-silver deposits of the Keno Hill-Galena Hill area, Y.T., Geol. Surv. Can., Bull. 111.

- 1968: The geochemistry of silver and its deposits;  
Geol. Surv. Can., Bull. 160.
- Cairnes, D.D.  
1910: Preliminary Memoir on the Lewes and Nordenskiöld  
Rivers Coal District, Yukon; Geol. Surv. Can.,  
Mem. 5.
- Campbell, F.A.  
1960: Nickel Deposits in the Quill Creek and White River  
areas, Yukon; Bull. Can. Inst. Mining Met.,  
Vol. 53, pp. 953-959.
- Chisholm, E.O.  
1957: Geophysical exploration of a lead-zinc deposit  
in Yukon Territory; methods and case histories in  
mining geophysics; Sixth Commonwealth Mining and  
Metallurgical Congress, pp. 269-277.
- Cockfield, W.E.  
1919: Mayo area, Yukon; Geol. Surv. Can., Sum. Rept.  
1919, part B.
- 1922: Silver-lead deposits of Davidson Mountains, Mayo  
district, Yukon; Geol. Surv. Can., Sum. Rept.  
1921, Pt. A, pp. 1A-6A; also in Bostock (1957,  
pp. 497-498).
- 1928a: Silver-lead deposits of Fifteenmile Creek, Yukon  
Territory; Geol. Surv. Can., Sum. Rept. 1927,  
Pt. A, pp. 11A-13A.
- 1928b: Silver-lead deposits of Rude Creek, Yukon Terri-  
tory; Geol. Surv. Can., Sum. Rept. 1927, Pt. A,  
pp. 11A-13A.
- Craig, D.B. and Laporte, P.J.  
1972: The mineral industry of Yukon Territory and  
Southwestern District of MacKenzie, 1969, 1970.  
Dept. of Ind. Aff. and North. Development.
- Craig, D.B. and Milner, M.W.  
1974: The mineral industry of Yukon Territory, 1971, 1972.  
(on Open File 1974; to be published as EGS 1975-2.)  
Dept. of Ind. Aff. and North. Development.
- Dawson, G.M.  
1889: Report on an exploration in the Yukon District,  
N.W.T., and adjacent northern portion of B.C.,  
Annual Rept., Geol. Surv. Can., 1887-88.
- Findlay, D.C.  
1967: The mineral industry of Yukon Territory and  
Southwestern District of MacKenzie, 1966; Geol.  
Surv. Can., Paper 67-40.



- 1969a: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1967; Geol. Surv. Can., Paper 68-68.
- 1969b: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1968; Geol. Surv. Can., Paper 69-55.
- Gabrielse, H., and Blusson, S.L.  
1969: Geology of Coal River map-area, Y.T.; Geol. Surv. Can., Paper 68-38.
- Gabrielse, H., Blusson, S.L., and Roddick, J.A.  
1973: Geology of Flat River, Glacier Lake and Wrigley map-areas, District of MacKenzie and Yukon Territory; Geol. Surv. Can., Mem. 366.
- Gleeson, C.F.  
1965a: Heavy metal content of stream and spring waters, Dublin Gulch, Y.T.; Geol. Surv. Can., Map 30-1964.
- 1965b: Heavy metal content of stream and spring sediments, Dublin Gulch, Y.T.; Geol. Surv. Can., Map 31-1964.
- 1966a: Lead content of stream and spring sediments, Keno Hill area, Y.T.; Geol. Surv. Can., Map 45-1965.
- 1966b: Silver content of stream and spring sediments, Keno Hill area, Y.T.; Geol. Surv. Can., Map 46-1965.
- 1966c: Arsenic content of stream and spring sediments, Keno Hill area, Y.T.; Geol. Surv. Can., Map 48-1965.
- 1967a: Antimony content of stream and spring sediments, Keno Hill area, Y.T.; Geol. Surv. Can., Map 49-1965.
- 1967b: Molybdenum content of stream and spring sediments, Keno Hill area, Y.T.; Geol. Surv. Can., Map 51-1965.
- Green, L.H.  
1965: The mineral industry of Yukon Territory and Southwest District of MacKenzie, 1964; Geol. Surv. Can., Paper 65-19.
- 1966: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1965; Geol. Surv. Can., Paper 66-31.

- 1971: Geology of Mayo Lake, Scougale Creek and McQuesten Lake map-areas; Geol. Surv. Can., Mem. 357.
- 1972: Geology of Nash Creek, Larsen Creek and Dawson map-areas; Geol. Surv. Can., Mem. 364.
- Green, L.H. and Godwin, C.I.
- 1963: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1962; Geol. Surv. Can., Paper 63-38.
- 1964: The mineral industry of Yukon Territory and southwestern District of Mackenzie, 1963; Geol. Surv. Can., Paper 64-36.
- Green, L.H. and McTaggart, K.C.
- 1960: Structural studies in the Mayo District, Y.T.; Proc. Geol. Assoc. Can., Vol. 12, pp. 119-134.
- Green, L.H., Roddick, J.A., and Blusson, S.L.
- 1967: Geology Nahanni, District of Mackenzie and Y.T.; Geol. Surv. Can., Map 8-1967.
- Hilker, R.G.
- 1967: Copper mining on the Whitehorse Copper Belt, Y.T.; a paper presented at the 1967 Alaska Purchase Centennial Minerals Conference, College, Alaska.
- Kindle, E.D.
- 1953: Dezadeash map-area, Y.T.; Geol. Surv. Can., Mem. 268.
- 1964: Copper mining on the Whitehorse Copper Belt, Y.T.; Geol. Surv. Can., Paper 63-41.
- Lambert, M.B.
- 1969: Study of a Tertiary cauldron subsidence complex, Bennett Lake, B.C. and Y.T., (104M/14, 105D/5); in Rept. of Activities, pp. 21-23; Geol. Surv. Can., Paper 69-1, pt. A.
- MacLean, T.A.
- 1914: Lode mining in Yukon; an investigation of quartz deposits in the Klondike division; Can. Dept. Mines., Mines Branch, Publ. 222.
- Muller, J.E.
- 1958: Kluane Lake map-area, Y.T.; Geol. Surv. Can., Paper 58-9.
- 1967: Kluane Lake map-area, Y.T.; Geol. Surv. Can., Mem. 340.
- Mulligan, R.
- 1963: Geology of the Teslin map-area, Y.T.; Geol. Surv. Can., Mem. 326.

- Murphy, J.D. and Sinclair, W.D.  
1974: Exploration for Lead-Zinc in the Selwyn and Mackenzie Mtns., Yukon and N.W.T., Dept. of Ind. Aff. and North. Dev.
- Phillips, M.P. and Godwin, C.I.  
1970: Geology and rotary drilling at the Casino Silver Mines property, Western Miner, Nov. 1970, pp. 43-49.
- Poole, W.H., Roddick, J.A. and Green, L.H.  
1960: Geology, Wolf Lake, Y.T.; Geol. Surv. Can., Map 10-1960.
- Roddick, J.A.  
1967: Tintina Trench; J. Geol. Vol. 75, pp. 23-33.
- Roddick, J.A. and Green, L.H.  
1961a: Tay River map-area, Y.T.; Geol. Surv. Can., Map 13-1961.  
  
1961b: Sheldon Lake map-area, Y.T.; Geol. Surv. Can., Map 12-1961.
- Skinner, R.  
1961: Mineral industry of Yukon Territory and south-western District of Mackenzie, 1960; Geol. Surv. Can., Paper 61-23.  
  
1962: Mineral industry of Yukon Territory and south-western District of Mackenzie, 1961; Geol. Surv. Can., Paper 62-27.
- Tempelman-Kluit, D.J.  
  
1968: Geologic setting of the Faro, Vangorda, and Swim base metal deposits, Y.T. (105K); in Rept. of Activities, pp. 43-52; Geol. Surv. Can., Paper 68-1, pt. A.  
  
1970: Stratigraphy and structure of the Keno Hill Quartzite in Tombstone River-Upper Klondike River map-areas; Geol. Surv. Can., Bull. 180.  
  
1972: Geology and origin of the Faro, Vangorda, and Swim concordant Zinc-lead deposits, central Yukon Territory; Geol. Surv. Can., Bull. 208.  
  
1973: Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River map-areas, west central Yukon; Geol. Surv. Can., O.F. 161.
- Wheeler, J.O.  
1961: Whitehorse map-area, Y.T.; Geol. Surv. Can., Mem. 312.

Wheeler, J.O., Green, L.H. and Roddick, J.A.

1960a: Quiet Lake map-area, Y.T.; Geol. Surv. Can.,  
Map 7-1960.

1960b: Finlayson Lake map-area, Y.T.; Geol. Surv. Can.,  
Map 8-1960.

INDEX

	Page
Abbott, G.	7
Acheron Mines Limited	110, 116
ADD Group	30
Aho, A.	137
AIR Group	27
AIRPORT Group	35
Aishihik Lake	68
AJAX Group	118
Alice Lake Mines Limited	65
Allgold Creek	131, 132
Amax Northwest Mining Company Limited	6, 19
Ames, C.	138
Ames, T.	149
ANG Group	23
ANN Group	23
ANNIV Group	89
Anvil Creek	56
Anvil Mine	50
Anvil Mining Corporation Limited	3, 50, 84, 121
Arch Creek	143
Archer, Cathro and Associates Limited	42, 83, 85, 86, 87
Archibald, J. and R.	127
ARO Group	56
AS Group	33
Asarco Exploration Company of Canada Limited	6, 41, 67, 73
ASH Group	69
Asuchak, G.	149
AZTEC Group	12
BAF Group	23
Ball, H.	137
Ballarat Mines Limited	133, 134
BANK Group	111
BARB Group	26
Barduson Placers Limited	140
BARITE Group	22
Barrier Reef Resources Limited	6, 23, 24, 26
BEA Group	99
Bear Creek	127
Bedrock Creek	131
Belmoral Mines Limited	13, 33, 52
Belzberg, S.	21
BEN Group	42
Berg, S.	127
Bernier, D.	137
BET Group	98
BETTY Group	19
Bleiler, E.	139
Blind Creek	53
BOB Group	14, 24
BON Group	23
Bonanza Creek	128
BOMBER Group	35
BORDER Group	19



	Page
Borrecco, E.	129
Boyne, W.	134
BRAM Group	53
Brannigan, D.	144
Bratsberg, B.	129
Bremner, I.	130
Brewster, W.	144
BS Group	58
Bur, L.	144
Burgleman, Mr. and Mrs. A.	132
Burwash Creek	143
Burwash Mining Company Limited	143
Caley, C.	128
CAM Group	67
Campbell, R.B.	7
Canadian Occidental Petroleum Limited	68, 69, 70
Canadian Reserve Oil and Gas Limited	7, 14
Canalask Property	60
Canex Placer Limited	4, 37, 89, 117
Canyon City	62
CAPRICORN Group	12
Casino Creek	6, 35
Casino Property	35
Casino Silver Mines Limited	6, 35
Cassiar Asbestos Corporation Limited	29
CAT Group	35
CED Group	113
Chapil, F.	129
Churchill, E.	145
Churchill, T.	145
CLARK Group	7, 15
Clark Lakes	15
Clear Creek	137
Clinton Creek	3, 29
Clinton Creek Mine	29
COIN Group	48
Colt Resources Limited	111
COMANCHE Group	47
Cominco Limited	107
Consolidated Nicholson Mines Limited	112
Cooper Mining Company	143
COPPER Group	14
Corn Creek	26
Corn Creek Property	26
Cox, E.	144
Cox, J.	143
Cream Silver Mines Limited	52, 102, 116
Crockett, M.	131
CYP Group	25
Cypress Resources Limited	25, 27
Cyprus Mines Limited	6, 38
Cyr Creek	144
Dago Hill	129
DANA Group	59
Dark Creek	39
DARK Group	45

	Page
Darron Placers	138
Dasson Copper Corporation	108
Davis, R.O.	143
Dawson Range Joint Venture	42
DEA Group	50, 93
DEF Group	6, 39
DEN Group	14
Dickson, A.	144
DIT Group	28
Dixie Mine	11
Djukastein, K.	140
DOG Group	14
DOLLY Group	32
Dolores Creek	27
Dome Exploration (Canada) Limited	77
Dominion Creek	132
DON Group	26, 89
DONNA Group	19
DOP Group	99
DP Group	50
Dublin Gulch	138
DUO Group	23
DY Group	50
Dyke, L.D.	8
DYN Group	93
Dynasty Explorations Limited	6, 17, 49, 53, 54, 56, 90 91, 92, 93, 94, 95, 118
ED Group	25, 50
Eisbacher, G.H.	7
Eldorado Creek	128
Elsa Mine	10
Empire Metals Corporation Limited	82
England, A. and H.	128
ENVI Group	110
Erickson, J.	131
Erickson, P.	131
Erl, F.	139
Eureka Creek	134
Exeter Mines Limited	37
FARO Group	50
Faucher, E.	147
FED Group	43
FETISH Group	86
Finlayson Joint Venture	86, 87
Firth River	146
FISH Group	88
Fish Creek	83
FORMO Group	12
Fortymile Creek	34
FOS Group	101
Foth, P.	127
FOTO Group	54
Four Mile Creek	16
Fourth of July Creek	145
FOX Group	117
Frantz, L.	145

	Page
Fraser, J.	129
Freegold Mountain	37
Friesen, E.	137
Fritz, W.H.	7
Fromme, H.	143, 144
Fry, A. and D.	127
FXE Group	25
GAL Group	50
GALE Group	50
Galena Hill	9
Gem Creek	137
Genier, A.	137
Genier, D.	137
GEP Group	24
GH Group	33
Gibson, R.	134
GIN Group	26
Glacier Creek Placers	147
Gmitrowicz, J.	139
GOLD Group	14
Gold Bottom Creek	130, 131
Golden Gate Explorations Limited	109
GOLDEN HORN Group	62
GORB Group	49
GOZ Group	23
Goz Creek	23
Goz Creek Property	23
GRAFTER Group	76
GRAN Group	56
Grand Forks	127
Grant, R. and J.	137
GREG Group	17
Grimard, L.	147
Gritzka, D.	131
GULL Group	19, 93
GYK Group	24
HACIENDA Group	12
HAM Group	23
HANNA Group	62
Harris, E.	144
Harrison Creek	24
HART Group	32
HATCH Group	68
Heitmann, G.	127, 139
Henney, A.	140
Hihet Creek	139
Highland Mercury Mines Limited	112
HILL Group	72
Hill, A.	129
Hill, E.	149
HOHO Group	53, 85
Honing, H.	138
HOO Group	4
Hoo Joint Venture	4, 85
Hopkins, W.S., Jr.	8
Howard's Pass Property	4, 89

	Page
Hudson Bay Exploration and Development Company Limited	76, 80
Hudson-Yukon Mining Company Limited	64
Hunker Creek	129, 130, 131
Hunker Placers	129, 133
Husky Mine	10
Hyland Joint Venture	83
Hyland River	81
IRENE Group	14, 88
Irish Gulch	128
Irvine Lake	80
Itsi Lakes	117
Jackpot Copper Mines Limited	72
Jackson Gulch	127
JAN Group	14, 55
JAY Group	13
JEAN Group	56, 82
Jeletzky, J.A.	8
JJ Group	84
JOE Group	35
JOHN Group	26
Johnson, J.	146
JON Group	59
Jorex Limited	77
JOY Group	118
J.S. Vincent Limited	66
KAM Group	109
K and S Placers	132
KAP Group	42
KAY Group	50, 96
Keno Hill	9
Keno Property	11
Kerr Addison Mines Limited	6, 58
Kinakin, M.	132
Kirkham, R.V.	7
KIS Group	24
Klassen, H.	137
Klein, G.	144
Klippert Brothers	138
Klondike Explorations Limited	44
Kluane River	67
KO Group	52
Kosuta, A.	130
Kreuger, D.	134
Lacross, J.	134
LAD Group	27
Lake Creek	149
Lamontagne, J.	128
Langevin, J.	129
La Roche, G.	147
Last Chance Creek	130
LEA Group	50, 98
Leidtke, H.	131
Le Moignan, B.	144
LEO Group	26
Levi, F.	138

	Page
LILL Group	72
LIN Group	23
LINDSAY Group	79
LISA Group	55
Loge, L.	138
LORNA Group	56
LOST Group	35
Lower Sulphur Creek	134
Lunde, Mr. and Mrs. O.	130
LUV Group	23
Lynch, J.	147
Lynx Creek	13
Macauley Creek	77
Macmillan Pass	6, 19
Macmillan Tungsten Property	6, 19
Macqueen, R.W.	8
MAD Group	96
MAG Group	60
Makao Development Company Limited	98, 99
Malicky, W.	137
MARC Group	62
MARY Group	65
McEvoy Lake	88
McDiarmid, A.	139
McIntyre, M.	137
McMillan Property	83
MEL Group	82
Miben Mining	129
MICRO Group	60
Miller Creek	78
MINERAL Group	79
Minto Creek	139
MINTO Group	6, 41
Minto Mining Limited	50
MIT Group	114
MM Group	84
MOOSE Group	22
MOR Group	50
Moraine Gold Mines Limited	144
Moritz, A. and G.	140
MS Group	91
MTX Group	100
Mosquito Gulch	127
Mount Hart	32
Mount Nansen	38
Mount Nansen Property	38
MOUSE Group	35
MYDA Group	87
NAH Group	108
NAT Group	14, 114
NEB Group	42
Needoba, G.	30
NESS Group	96
Nicholson, C.	127
Nickel Syndicate	60
Nines Creek	66



	Page
No Cash Mine	10
NOR Group	99, 104
Noranda Exploration Company Limited	96, 98
Norback, I.	133
Norby, V.	137
Norris, D.K.	8
Northair Mines Limited	44
NRD Mining Limited	100
NUK Group	62
OP Group	89
ORE Group	112
ORO Group	96
Osborne, A.	144
Otter Lake	82
PAL Group	42
Pan Ocean Oil Limited	81
PAR Group	19
Parkes, R.	146
PAS Group	92
PAT Group	19, 116
PAUL Group	14
PB Group	25, 103
PEA Group	50
PELL Group	104
Pelland, A.	140
Perret, F.	128
PIK Group	16
Pinnacle Mines Limited	47
PIT Group	19
PLATA Group	6, 17
PORKER Group	83
POS Group	101
PREVO Group	94
PRO Group	112
Prohaszka, S.	131
Prospector Mountain	36
PUEBLO Group	76
Quartz Creek	133, 134
Quill Creek-Kluane Area	64
Quill Creek-Haines Junction	73
R Group	89
R and L Mining Company	134
Rambler Hill Property	14
Rasmussen, W.	134
Rastetter, H.	145
RAT Group	35
RAY Group	24
Read, B.	7
Reinke, D.	30
Renton Management Limited	109
REX Group	73
RH Group	31
RIB Group	70
RICH Group	50
RIDGE Group	77
Ridgemont Mining Corporation	6, 55, 59

	Page
RIETA Group	81
Rio Plata Silver Mines Limited	12
Rivers, S.	128
ROB Group	26
ROD Group	44
Rogue River	17
Rose Creek	50
ROSS Group	101
Ross, L.	134
Rothbauer, W.	143
ROTO Group	56
Rousseau, S.	137
RUBY Group	67
Ruby Creek	145
RUM Group	72
RUSK Group	38
Sailer, Mr. and Mrs. A.	132
SAM Group	101
SAND Group	114
Sawtooth Range	79
SB Group	50
Schneider, F.	130
Scott, W.	137
SCREW Group	25
Scurry-Rainbow Oil Limited	7, 15
SEA Group	50
Seagull Creek	84
Seeh, R.	145
Sestak, J.	147
Shamrock Property	11
Sheep Creek	146
Silver City Mines Limited	6, 62
Silver Spring Mines Limited	7, 14
Silver Standard Mines Limited	6, 32, 34
SINK Group	50
Sinkowicz, A.	134
Sixtymile River	147
Slab Mountain	28
SLAGGARD Group	62
SLATE Group	21
Slocan Development Corporation Limited	112
Smith, E.	144
SON Group	16
Sourdough Hill	127
South Boundary Creek	31
Souther, J.G.	7
Southwicke, P.	144
Spartan Explorations Limited	6, 22
Spirit Explorations Limited	115
SPRING Group	79
SPY Group	66
STAR Group	36
Starbird Mines Limited	36
STE Group	72
STERLING Group	34
STOL Group	23

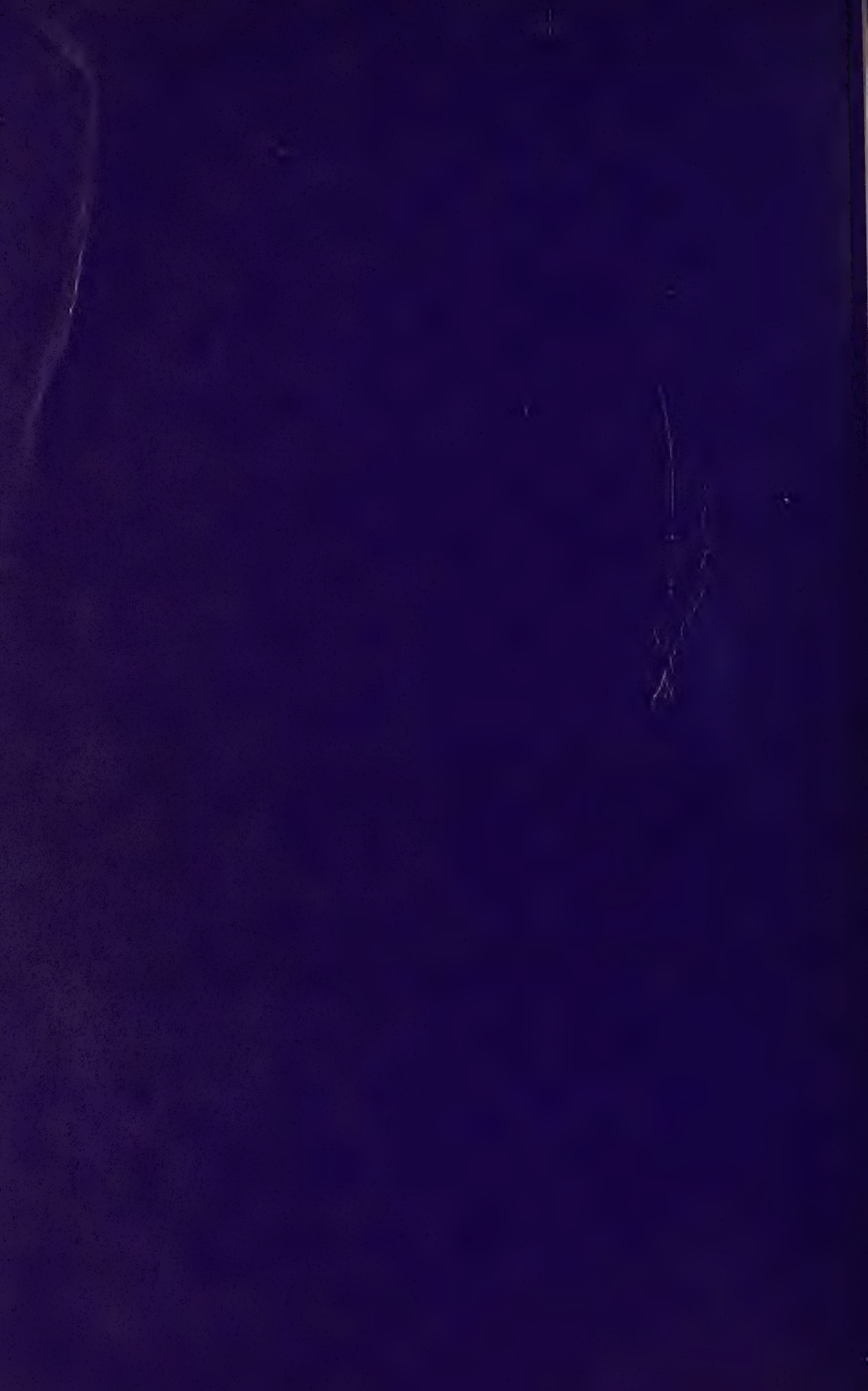
	Page
Sulphur Creek	134
SUM Group	114
Summit Lake	89
SUN Group	46
SUN Group	27, 50
Swim Lakes	58
Talbot Creek	70
TAM Group	95
Tantalus Butte Mine	121
Tanzilla Explorations Limited	103
TAP Group	90
Taseko Mines Limited	48
Tatamagouche Creek	65, 143
TATS Group	72
Tatshenshini River	72
Taylor, F.	140
Tay River	59
Tay River Mines Limited	114
TD Group	35
Tempelman-Kluit, D.J.	7
Tenmile Creek	147
Teslin Exploration Limited	120
TG Group	26
THATCH Group	68
Thompson, T.	135
Thor Explorations Limited	101
Thunder Gulch	140
TIGER Group	14
TIN Group	67
TINTA Group	37
Todd, J.	139
Todd, P.	139
TON Group	109
Townsite Mine	11
Trail Gulch	127
Trail Hill	127
Trans-Yukon Exploration Limited	79
TROIS Group	106
TUV Group	78
UN Group	105
United Keno Hill Mines Limited	3, 6, 9, 39, 43, 46, 78
Van Bibber, G.	16
VERN Group	14
Vestor Explorations Limited	88, 104, 105, 106
VIC Group	35
Victoria Gulch	129
VUH Group	23
WALT Group	23
Waterman, C.	137
Wellgreen Mine	6, 64
Werner, D.	128
WET Group	50
Wheaton Project	77
Whitehorse Copper Belt	74
Whitehorse Copper Mines Limited	3, 74
WO Group	81

	Page
Wozniak, L.	140
Woznica, L.	146
Wyatt, W.	143
X Group	89
Y Group	89
Yaremccio, W.	148
Young, F.G.	8
YUK Group	115
Yukon Gold Placers Limited	47
ZAK Group	80
ZAP Group	14
Zastre, A.	144
ZN Group	25











Indian and  
Northern Affairs

Affaires indiennes  
et du Nord

North of 60

Mineral Industry Report  
1974  
Yukon Territory  
EGS 1975-9

W. D. Sinclair  
J. M. Maloney  
D. B. Craig

CA1  
IA60  
- M33





Canada

Government  
Publications

Dept of Indian Affairs & Northern Development

MINERAL INDUSTRY REPORT

1974

Yukon Territory

by

W.D. Sinclair  
J.M. Maloney  
D.B. Craig



© Crown Copyright reserved

Available by mail from Information Canada, Ottawa, K1A 0S9  
and at the following Information Canada bookshops:

Halifax  
1683 Barrington Street

Montreal  
640 St. Catherine Street West

Ottawa  
171 Slater Street

Toronto  
221 Yonge Street

Winnipeg  
393 Portage Avenue

Vancouver  
800 Granville Street

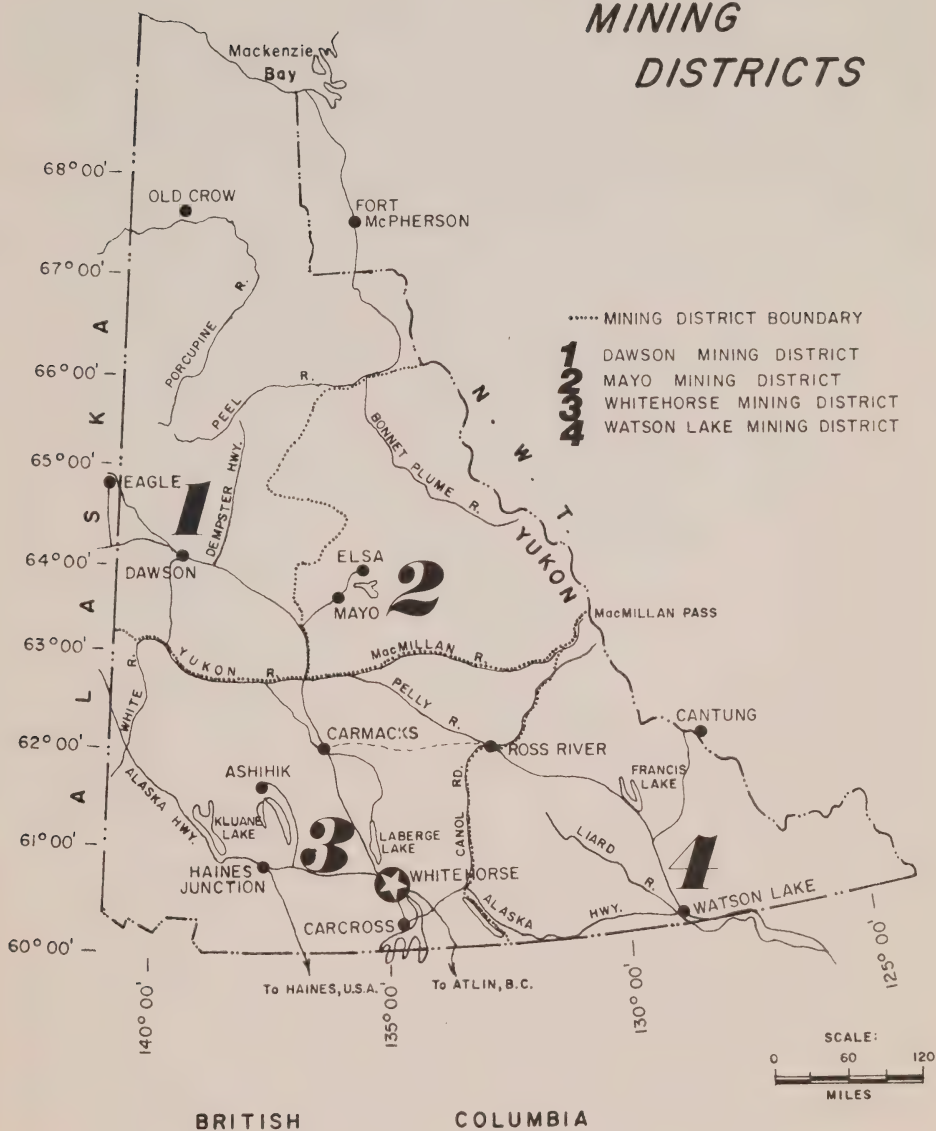
or through your bookseller  
Price Canada: \$3.50  
Price other countries: \$4.20  
Price subject to change without notice

Catalogue No.: R71-9/1974-1  
Information Canada  
Ottawa 1975

INA Publication No. QS-8057-000-EE-A1



# YUKON TERRITORY MINING DISTRICTS





CONTENTS

	Page
Abstract.....	1
Introduction.....	2
Transportation facilities.....	2
Mineral production of Yukon.....	4
Lode exploration.....	6
Activities of the Geological Survey of Canada.....	7
Lode mining and exploration.....	10
Mayo Mining District.....	10
Galena and Keno Hills area.....	10
Hess Mountains area.....	17
MacMillan Pass area.....	18
Bonnet Plume River area.....	23
Snake River area.....	64
Wind River area.....	67
Ogilvie Mountains area.....	69
Dawson Mining District.....	72
Fortymile area.....	72
Ogilvie Mountains area.....	73
Keele Range area.....	85
Richardson Mountains area.....	86
Whitehorse Mining District.....	92
Dawson Range area.....	92
Anvil Range area.....	128
Upper White River area.....	138
Nisling Range area.....	139
Dezadeash area.....	140
Whitehorse area.....	142
Wheaton River area.....	146
Big Salmon Range area.....	148
Watson Lake Mining District.....	150
Cassiar Mountains area.....	150
Liard Plateau area.....	152
Pelly Mountains area.....	154
Selwyn Mountains area.....	159
Coal mining and exploration.....	168
Whitehorse Mining District.....	168
Placer mining .....	169
Dawson Mining District.....	169
Klondike area.....	169
Sixtymile area.....	177
Mayo Mining District.....	180
Mayo-McQuesten area.....	180
Whitehorse Mining District.....	184
Kluane area.....	184
Reports accepted for assessment credit - 1974.....	188
Selected Bibliography.....	199
Index.....	204
Table I Transportation costs, Yukon Territory.....	3
II Mineral production, Yukon Territory.....	5
III Mineral claims staked, Yukon Territory.....	6

## Illustrations

	Page
Klondike area placer locations, 1974.....	176
Sixtymile area placer locations, 1974.....	179
Mayo-McQuesten area placer locations, 1974.....	183
Kluane area placer locations, 1974.....	187



ABSTRACT

This report is a summary of activity by the mineral industry in the Yukon Territory during 1974.

The value of Yukon mineral production in 1974 was \$185 million, compared to \$150 million in 1973. The increase is due mainly to favourable metal prices in 1974, rather than any significant increases in production from any of the mines.

Exploration activity increased significantly in 1974 to \$11.9 million from \$9.2 million in 1973. The increase in activity is also reflected in the number of claims staked, which was 13,734 in 1974 compared to 9,383 in 1973.

Placer gold production increased in 1974 reflecting the renewed interest in gold due to its increased value in recent years.

Coal mining and exploration was limited to production from the Tantalus Butte Mine near Carmacks.

## INTRODUCTION

This report is a review of the Yukon mineral industry for 1974 by the Northern Natural Resources and Environment Branch, Department of Indian and Northern Affairs. Earlier records of mineral industry activities are presented in the Annual and Summary Reports of the Geological Survey of Canada (1898 to 1933), Memoirs of the Geological Survey of Canada (1935 to 1940), Papers of the Geological Survey of Canada (1960 to 1968) and Mineral Industry Reports of the Department of Indian Affairs and Northern Development (1969 to 1973). Information in this report was obtained from visits to mineral properties and by personal communication with individuals as well as from technical reports, trade journals, newspapers, publications of the Geological Survey of Canada and the monthly reports of the Mining Recorders of the Dawson, Mayo, Watson Lake and Whitehorse Mining Districts. The cooperation and assistance of companies and individuals of the mineral industry and members of government agencies are gratefully acknowledged.

## TRANSPORTATION FACILITIES

Whitehorse, with a population of roughly 13,000 in 1974, is the capital and main distribution centre in the Yukon. It is serviced by ship and rail via Skagway and by truck, bus and air from Edmonton and Vancouver. All-weather surface transportation routes connect to Dawson, Carmacks, Faro, Ross River, Watson Lake, Haines Junction, Alaska and points between. Regular bus and freight services are available. Minor roads connect with many mining properties, ranches and timber leases. Boats or barges are also used on occasion to transport heavy equipment and fuel on the Yukon River. Fixed wing and helicopter aircraft are available for charter at Whitehorse, Watson Lake and Ross River throughout the year and at numerous other points during the summer months. Representative costs for transportation in the Yukon during 1974 are given in Table I.

TABLE I

Transportation Costs, Yukon Territory

RAIL AND BOAT

Ore and concentrates, Whitehorse to North Vancouver  
Rate on 30,000 lb. carloads

Lead, zinc, copper con's.....\$16.00/ton  
Asbestos fibre.....\$17.00/ton

Mining equipment and related supplies - North Vancouver to Whitehorse  
(dollars/100 lb.)

Pounds	<u>10,000</u>	<u>24,000</u>	<u>36,000</u>
Machinery	3.75	3.00	2.90
Packaged Petroleum products	3.60	3.20	3.15
Drilling mud, plywood	3.60	3.00	2.90

Backhaul rate up to 12 months is 60 per cent

TRUCK

Basic rates - Whitehorse from Edmonton and Vancouver (dollars/100 lb.)

Pounds	<u>100</u>	<u>1,000</u>	<u>5,000</u>	<u>10,000</u>
From Edmonton	12.00	7.90	6.50	5.64
From Vancouver	18.25	10.30	7.76	6.65

BUS

Express rates - Whitehorse

Pounds	<u>1-2</u>	<u>2-10</u>	<u>40-50</u>	<u>90-100</u>
From Edmonton	3.65	3.65	8.95	15.85
From Vancouver	3.40	3.65	9.95	18.00

AIR (Edmonton-daily, Vancouver-twice daily)

Air express and air freight - Whitehorse

<u>Air express</u>	<u>Minimum 11 lb.</u>	<u>20 lb.</u>	<u>100 lb.</u>
From Edmonton	\$8.00	\$11.25	\$38.75
	<u>Minimum 9 lb.</u>		
From Vancouver	\$8.00	\$12.15	\$43.50

Table 1 (cont'd)

<u>Air Freight</u>	<u>Min. 50 lb.</u>	<u>50-100</u>	<u>over 100 lb.</u>
From Edmonton	\$11.50	\$.22/lb.	\$.21/lb.
	<u>Min. 25 lb.</u>		
From Vancouver	\$6.00	\$.22/lb.	\$.20/lb.

CHARTER AIRCRAFT

<u>Type</u>	<u>Rate per hour</u>	<u>Rate per mile</u>
Fixed wing		
Cessna 172	\$65.00	\$0.55
185	96.50	0.75
Beaver	105.00	1.00
Otter (Single)	145.00	1.35
Otter (Twin)	265.00	1.60
Aztec	150.00	0.80
Helicopter (Fuel supplied by charterer)		
Bell 47G-2	132.00	
Bell 47G-3B-1	165.00	
Bell 206A	240.00	
Sikorsky S55T	340.00	
Hiller 12-E	160.00	

MINERAL PRODUCTION OF YUKON

Mineral production in Yukon Territory in 1974 came from three underground and two open-pit mines which together produced lead, zinc, copper and silver concentrates, asbestos fibre and coal. The current and cumulative values of the mineral production summarized in Table II show a preliminary value of \$185 million for 1974, compared with \$151 million in 1973. Production of silver increased slightly whereas production of lead, zinc, copper, asbestos and coal declined. The increased value of total mineral production is due to favourable metal prices in 1974 rather than any substantial increases in production. Individually, the Anvil Mine continued to be the Yukon's leading mineral producer (\$130 million) followed by Clinton Creek (\$22 million), Whitehorse Copper Mines (\$19 million) and United Keno Hill Mines (\$17 million). Production of coal from the Tantalus Butte Mines was used almost entirely for heating and concentrate drying at the Anvil Mine.

TABLE II

Mineral Production, Yukon Territory

Product	1972	1973	1974 <sup>1</sup>	Cumulative totals <sup>1</sup> 1886 to 1974
Gold...\$ ounces	234,983 4,079	2,032,502 20,865	4,130,000 26,000	274,680,855
Silver...\$ ounces	8,331,575 4,988,967	15,342,856 6,073,973	28,420,000 6,158,000	207,143,090
Lead...\$ pounds	34,392,366 222,921,742	38,013,324 235,522,452	44,010,000 212,609,000	227,139,267
Zinc...\$ pounds	45,241,287 237,225,560	61,167,027 253,321,575	68,576,000 183,344,000	278,353,881
Cadmium...\$ pounds	82,759 32,711	45,718 12,560	7,330	6,344,235
Copper...\$ pounds	890,286 1,748,093	14,791,665 23,186,245	17,605,000 22,600,000	64,399,984
Nickel...\$ pounds	3,996,762 2,814,621	5,209,621 3,404,981		9,206,383
Platinum...\$ ounces	325,573 3,625	149,458 1,314		475,031
Asbestos...\$ tons	13,006,476 101,888	13,915,140 100,734	22,300,000 90,000	96,538,670
Coal...\$ tons	18,435	19,915	17,027	2,567,132
Totals...\$	106,502,067	150,667,311	185,041,000	1,166,848,528

<sup>1</sup>Preliminary Figures



LODE EXPLORATION

Mineral exploration activity in Yukon Territory amounted to expenditure of \$11.9 million in 1974, up from \$9.2 million in 1973. Considerable exploration activity took place in the MacKenzie Mountains, following base metal discoveries near Goz Creek in the Bonnet Plume River area, which precipitated a major staking rush in 1973. There were also major drilling programs carried out on the Minto copper deposit north of Carmacks and the Grum lead-zinc deposit near Faro. Claims recorded in the Yukon, also a reflection of exploration activity, increased in 1974 to 13,734 from 9,383 in 1973 (Table III).

TABLE III  
Mineral Claims Staked, Yukon Territory

Mining District	1970	1971	1972	1973	1974
Dawson	848	1,054	669	1,168	1,504
Mayo	768	1,026	1,784	2,587	6,038
Watson Lake	1,294	1,245	2,470	2,509	1,325
Whitehorse	8,609	4,380	1,922	3,119	4,867
Totals	11,519	7,705	6,845	9,383	13,734

In the Dawson Mining District, a number of major companies did regional surveys and some detailed property examinations in the Ogilvie and southern Richardson Mountains.

The Mayo Mining District hosted the greatest share of exploration activity, much of it in the Bonnet Plume River area where base metal discoveries had been made the previous year. On the Goz Creek property of Barrier Reef Resources Limited, the principal discovery to date, a diamond drilling program amounting to 6,639 feet in 20 holes was carried out. On the Cypress Resources Limited property, seven holes were drilled totalling roughly 3,000 feet. Numerous other companies made detailed property examinations in the area and several regional exploration programs were conducted throughout the MacKenzie Mountains by major mining companies.

In the MacMillan Pass area, Amax Northwest Mining Company Limited carried out preliminary environmental baseline studies on the MacMillan Tungsten property. Amax had previously announced reserves of approximately 30 million tons of 0.9 per cent tungsten trioxide on the property.

In the Watson Lake Mining District, Canex Placer Limited continued work on the Howard's Pass lead-zinc property in the Summit Lake area and drilled ten holes totalling 4,076 feet. Several other companies did detailed work in the area including Dynasty Explorations Limited who did 1,661 feet of diamond drilling in four holes on the PAS property.

Tintina Silver Mines Limited carried out an extensive exploration program on their silver-lead-zinc property in the Ings River area, Pelly Mountains. A total of 11,899 feet were drilled on the property in 97 holes.

In the Whitehorse Mining District, United Keno Hill Mines Limited did 27,029 feet of diamond drilling and Asarco Exploration Company of Canada Limited did 36,838 feet of diamond drilling on their respective copper properties in the Minto area. The principal ore body, which straddles the boundary between the two properties is estimated to contain in excess of eight million tons of 1.8 per cent copper with minor amounts of gold and silver. Several other companies carried out detailed property examinations, including diamond drilling, in the Minto area. In addition to detailed property work, several companies carried out regional exploration programs in the general Dawson Range area.

In the Anvil Range area, Kerr Addison Mines Limited and AEX Minerals Corporation diamond-drilled 55,784 feet in 60 holes on the GRUM property near Faro and announced discovery of a major zinc-lead-silver deposit. Considerable development work is planned for this property in 1975. A number of other companies including Cyprus Anvil Mining Corporation carried out detailed property exploration in the Anvil Range area in 1974.

#### ACTIVITIES OF THE GEOLOGICAL SURVEY OF CANADA

During 1974, officers of the Geological Survey of Canada undertook one reconnaissance mapping program and numerous special studies in Yukon Territory.

R.B. Campbell and C.J. Dodds carried out regional mapping in the Dezadeash area as part of Operation Saint Elias. Rocks mapped were mainly Paleozoic sedimentary and volcanic rocks of low metamorphic grade and a variety of plutons in the Icefield Ranges.

P.B. Read and J.W.H. Monger studied the Mush Lake Group and underlying rocks in Dezadeash, eastern Mount Saint Elias and Kluane Lake map-areas. Rocks of the Mush Lake Group, previously mapped by Kindle (1953) as Triassic and Jurassic (?) in age, are now thought to be of probable Ordovician and Devonian ages.

G.H. Eisbacher conducted reconnaissance mapping to determine the sedimentology and structure of the Upper Jurassic (?) - Lower Cretaceous Dezadeash Group. The Dezadeash Group was found to consist of roughly 11,000 feet of marine flysch. The structure of the flysch sequence has been complicated by three major deformational events.

J.G. Souther and Constantina Stanciu studied Tertiary volcanic rocks along the eastern fringe of the Saint Elias Mountains. The volcanic rocks consist of lavas and pyroclastic rocks for which the name Wrangell Lava was adopted and felsic, subvolcanic rocks to which the name Wrangell Intrusions was applied. Within the volcanic terrain, three distinct sub-provinces were recognized: the Canyon Mountain Province, the St. Clare Province and the Alsek Province. In the Alsek Province, a zone of hydrothermal alteration was outlined centred around a vent breccia. Quartz-calcite-epidote veins carrying sulphides were found in the central part of the altered zone.

D.J. Tempelman-Kluit examined parts of the Carmacks map-area in the early part of the 1974 field season. This work was aimed at the re-interpretation of the geology following recent studies in the adjacent Snag and Aishihik Lake map-areas. A brief examination was also made of the drill core at the United Keno Hill copper property near Minto. It was concluded that the copper was hydrothermally emplaced in schlieren of poorly digested Pelly Gneiss during late stages in the formation of Klotassin granodiorite from the Pelly Gneiss.

D.J. Tempelman-Kluit, G. Abbott, S. Gordey and B. Read carried out stratigraphic and structural studies in the Pelly Mountains. This work was designed to gain a better understanding of the tectonics of the Tintina Trench.

R.J. Allan initiated a study of bedrock geochemistry in the immediate vicinity of several major ore deposits including the Faro lead-zinc deposit. Samples of diamond drill core were collected and will be analyzed for a variety of major and minor elements in order to characterize geochemical patterns in the bedrock around these deposits.

D.F. Sangster made a brief study of smithsonite occurrences in the northern Cordillera and concluded that secondary lead and zinc minerals will be important in future prospecting for lead and zinc in the Mackenzie Mountains.

K.M. Dawson outlined the distribution of zinc-lead deposits in carbonate rocks of the northern Cordillera and grouped them in three separate "camps" - Godlin Lakes, Bonnet Plume River and northern Mackenzie Mountains. The deposits are similar in that they generally occur in Lower Paleozoic rocks, mainly Lower Cambrian carbonates, and consist of low-grade stratiform sphalerite-galena deposits locally remobilized and upgraded in Laramide fractures.

K.R. Dawson spent part of the summer examining barite and fluorite occurrences in the Selwyn Fold Belt. The MOOSE and TOM properties in the MacMillan Pass area were visited and are believed to be primary baritiferous sediments.

S.F. Leaming visited the King Jade property four miles west of Mile 84 on the Campbell Highway. An attempt to locate the source of the jade referred to by Kindle (1953) east of Klukshu Lake near the Haines Road was unsuccessful.

W.H. Fritz visited a number of classical Cambrian fossil localities in the North American Cordillera. Stratigraphic and fossil data were collected to establish a correlation framework based on three elements: a Lower Cambrian fossil zonation, a concept of large Cambrian sedimentary cycles and a concept of large Cambrian sedimentary belts. In the suggested framework, the observed strata have been assigned to three Lower Cambrian sedimentary cycles which have been traced from Idaho to the Yukon and Northwest Territories.

J.M. Carson, J.A. Hunter and C.P. Lewis conducted a shallow marine refraction survey in the Kay Point area of the Yukon Territory as part of a study of sediments and sedimentary processes along the Beaufort Sea Coast, jointly sponsored by the Geological Survey, the Beaufort Sea Project, and the Environmental-Social Program, Northern Pipelines. Using a "reversed" profiling procedure, the distribution and nature of sub-seabottom frozen ground were outlined and related to coastal processes such as delta formation and shoreline recession.

J.V. Matthews, Jr. studied a small assemblage of plant and animal macrofossils and pollen from a site on the Yukon coast near Alaska. The fossil data were found to be incongruent with the pollen data and the danger of relying on pollen evidence to plot the dispersal history of plants was illustrated.

D.L. Forbes initiated a study of sedimentary processes and sediments on the Babbage River delta, Yukon coast, to document river-marine interaction in an arctic context, with particular emphasis on the effects of storms and

floods. The results may help to outline hazards associated with future exploration or construction in the area.

C.P. Lewis continued investigation of sediments and sedimentary processes on the Yukon-Beaufort Sea Coast. Work in 1974 was concentrated on detailed studies in the Kay Point area with particular emphasis on the geological aspects of coastal susceptibility to potential oil spills associated with proposed exploratory offshore drilling.

J.A. Jeletzky studied a distinctive conglomerate unit in the eastern Keele Range. This unit, now named the Sharp Mountain Formation, is thought to be a shoreline facies of the Upper Aptian-Lower Albian flysch sequence of the Porcupine Plateau.

A.E.H. Pedder outlined the sequence of three Lower Devonian coral faunas from Yukon Territory. The coral faunas were correlated with previously established conodont sequences and comparisons were made with sequences in Nevada and Europe.

F.G. Young conducted stratigraphic and sedimentologic studies on Upper Devonian and younger rocks in northeastern Eagle Plain, Yukon Territory. Preliminary data on stratigraphy, lithofacies, petrography, paleontology, thickness trends and paleocurrents support the existence of the early Mesozoic Eagle Arch.



LODE MINING AND EXPLORATION

MAYO MINING DISTRICT

GALENA AND KENO HILLS AREA

UNITED KENO HILL MINES LIMITED  
P.O. Box 40, Commerce Court West  
Toronto, Ontario  
M5L 1B4

Silver, Lead, Zinc, Cadmium  
105 M 13, 14  
(about 63°55'N, 135°29'W)

Selected References: Boyle (1957; 1965; 1968); Green and McTaggart (1960); Green (1966, pp.10-17); Gleeson (1966; 1967); Findlay (1967, pp.18-21; 1969a, pp.20-24; 1969b, pp.10-12); Tempelman-Kluit (1970); Craig and Laporte (1972, pp.11-13); Sinclair and Gilbert (1975, pp.9-11).

Claims: Approximately 892 claims in the Mayo district.

Location and Access:

The properties, mainly on Keno Hill and Galena Hill, are easily accessible by an all-weather road from Mayo, 32 miles to the south. Ore concentrates are trucked 277 miles to Whitehorse then transferred to the White Pass and Yukon Railway and shipped to Skagway.

History:

The Keno-Galena Hills district is the second most important silver producing area in Canada and has the longest production history of any lode mining area in the Yukon. Silver-bearing galena was first discovered in 1906 on Galena Creek and from 1913 to 1919 a small tonnage of high grade silver-lead ore was mined and shipped. In July 1919, silver-lead veins were discovered by Louis Beauvette on Keno Hill and in the resulting stampede a number of important prospects were discovered. Beauvette's claims were acquired by the Yukon Gold Company which, in 1920, formed a subsidiary company, Keno Hill, Limited, to mine them.

In 1921, the Treadwell Yukon Company, Limited began mining on the Ladue claim and gradually acquired many of the better showings in the camp. In the period 1921-1941, Treadwell Yukon operated the Ladue, Sadie-Friendship, Lucky Queen, Silver King, Elsa and Calumet mines. Total production was about 44 million ounces of silver and 96 million pounds of lead from 625,000 tons of ore mined.

Inoperative from 1942 to 1946, the Treadwell Yukon Company Limited was succeeded in 1946 by Keno Hill Mines Limited, reorganized in 1948 as United Keno Hill Mines Limited. From 1947 to 1974, United Keno has produced 123,228,810 ounces of silver, 432,527,858 pounds of lead, 328,132,580 pounds of zinc and 4,157,754 pounds of cadmium from 3,459,181 tons of ore milled (United Keno Hill Mines Limited, Annual Report, 1974).

Description:

The Keno-Galena Hills area is underlain by graphitic and sericitic schist, phyllite and quartzite which have been divided into a lower schist, a central quartzite and an upper schist (Unit 1, 2, 3, Boyle, 1964). Formerly considered to be part of the Precambrian Yukon Group of metasediments, the lower schist and central quartzite are now thought to be Jurassic and Lower Cretaceous



respectively, with the age of the upper schist uncertain (Tempelman-Kluit, 1970). Metadiorite and metagabbro, locally referred to as "greenstone", occur as conformable lenses and sills in the lower schist and central quartzite. Granitic stocks of Cretaceous age outcrop northwest and southeast of the Keno-Galena Hills area and quartz-feldspar dykes are present locally.

The metasedimentary rocks lie on the southern limb of a large open anticline and dip southeast. The strata are cut by two systems of faults, one striking northeast and one northwest.

The ore deposits consist of siderite-galena-sphalerite-freibergite-pyrite-chalcopyrite veins in northeast-trending faults and appear to be best developed in erratic, structurally-related dilatant zones in thick-bedded quartzite and greenstone.

#### Current Work and Results:

During 1974, total production was 93,232 tons of ore from seven mines in the area. The greatest production was from the Husky Mine which accounted for 43,540 tons of ore grading 52.38 ounces of silver per ton, 4.76 per cent lead and 0.60 per cent zinc. Development work at the Husky Mine consisted of 2,020.5 feet of lateral advancement, 615 feet of which was in ore. Sub-drifting, sub-crosscutting and raising in the southwest section did not encounter ore. Diamond drilling was carried out intermittently on the 375-foot level with inconclusive results. The No Cash Mine produced 15,608 tons of ore which carried 32.90 ounces of silver per ton, 3.61 per cent lead and 1.16 per cent zinc. Lateral development totalled 1,541 feet. Diamond drilling was carried out below the 225-foot level. Production from the Elsa Mine was 9,214 tons averaging 26.76 ounces of silver per ton, 3.71 per cent lead and 1.44 per cent zinc. Underground development was limited to 25 feet of cross-cutting and 352.5 feet of sub-drifting, none of which encountered any ore shoots. From the Dixie Mine, 5,296 tons of ore were produced with an average grade of 22.40 ounces of silver per ton, 3.67 per cent lead and 3.92 per cent zinc. Lateral advancement of 549 feet failed to develop any new ore. The Shamrock Mine produced 4,635 tons of ore containing 28.99 ounces of silver per ton, 7.20 per cent lead and 0.51 per cent zinc. Underground development included a 1,914 foot crosscut to the "J" Structure and 343 feet of drifting and sub-drifting. The main raise was advanced 217 feet, of which 133 feet developed ore over a width of 11.1 feet. The Townsite Mine produced 3,910 tons of ore with a content of 20.55 ounces of silver per ton, 5.06 per cent lead and 2.50 per cent zinc. Underground development was limited to 151 feet of sub-drifting. The Keno Mine accounted for 3,857 tons of ore averaging 29.23 ounces of silver per ton, 4.98 per cent lead and 2.30 per cent zinc. In addition to the production from the mines, the Calumet dump provided 7,172 tons of ore with an average grade of 4.35 ounces of silver per ton, 0.54 per cent lead and 1.10 per cent zinc.

Surface exploration in the area consisted mainly of overburden drilling, which totalled 207,770 feet in 1974 on sixteen drilling grids. No significant discoveries were made although some follow-up drilling will be required. Geological mapping and geochemical sampling were carried out on the CH claim group on Chambers Hill on the northwest side of the South McQuesten River.

The following summary of operating results for 1972, 1973 and 1974 is taken from information provided by the company:

	1974	1973	1972
Tons milled	93,232	94,819	80,646
Daily average (tons)	255.4	259.8	220.3
Mill Heads:			
Silver (oz/ton)	37.73	34.99	32.54
Lead (%)	4.22	4.04	3.96
Zinc (%)	1.15	0.92	2.66
<u>Metal Production</u>			
Silver (oz)	3,237,205	3,134,828	2,503,921
Lead (lb)	6,734,719	7,262,400	6,108,042
Zinc (lb)	545,357	1,345,062	3,307,178
Cadmium (lb)	7,330	17,944	46,736
<u>Metal Sales</u>	\$17,480,540	\$11,614,473	\$6,120,944
<u>Ore Reserves (tons)</u>	105,632	84,500	65,200
Silver (oz/ton)	44.0	47.4	56.8
Lead (%)	4.9	5.8	6.4
Zinc (%)	1.2	1.5	1.5

FORMO  
Rio Plata Silver Mines Limited  
420-475 Howe Street  
Vancouver, British Columbia

Silver, Lead, Zinc  
105 M 14  
(63°56'N, 135°22'W)

References: Green and Godwin (1963, p.10); Boyle (1965, pp.67-68);  
Sinclair and Gilbert (1975, p. 12).

Claims: PAPOOSE, TYEE, PREMIER, SPRUCE, CHEECHAKO, ROCKET, TILlicum, DOROTHY,  
TAGISH, SKOOKUM, BIRCH, BRA, SOMETHING (Fr.), WIMPY (Fr.)

Location and Access:

The property is situated on the north slope of Galena Hill, nearly five miles northeast of Elsa. Access is by the Elsa-Keno road.

History:

The FORMO property was formerly owned by Yukeno Mines Limited. In 1961, the property was leased by A.A. Smith of Mayo, who hand-cobbed 14.8 tons of ore grading 144.6 ounces of silver per ton, 57.0 per cent lead and 10.3 per cent zinc in the winter of 1961-62 (Green, 1963,p.10). Late in 1962, the FORMO property was acquired by Rio Plata Silver Mines Limited, who carried out a program of ground magnetics,soil sampling and bulldozer trenching in 1973.

Description:

The property is underlain by graphitic, quartz-sericite schist of the Lower Schist Formation (Unit 1a, Boyle, 1965, Figure 2) that have been intruded by sill-like bodies of metadiorite and metagabbro locally referred to as greenstone (Unit 7, op.cit.). The main showing on the property is a silver-lead-zinc vein in a fault zone mainly within quartz-sericite schist

except near the original FORMO shaft where schist east of the fault is in contact with greenstone west of the fault.

Current Work and Results:

In 1974, Rio Plata carried out a ground electromagnetic survey, bulldozer trenching and drilled 8 diamond drill holes totalling roughly 900 feet. The drilling outlined an extension of the FORMO vein on the south side of a cross-fault.

SNOWDRIFT

United Keno Hill Mines Limited  
Elsa, Yukon Territory

105 M 13  
(63°53'N, 135°40'W)

References: Boyle (1965); Findlay (1969a, p.26).

Claims: SNOWDRIFT 1-11

Location and Access:

The property is situated on the west end of Galena Hill, roughly seven miles west of Elsa. Access is via the South McQuesten Road.

History:

The property was previously staked as the ALBERTA and YUKON groups which were investigated by Fort George Mining and Exploration Company Limited in 1967 and later by Silver Spring Mines Limited. These claims lapsed and were restaked as the SNOWDRIFT claims in March 1974.

Description:

The property is underlain primarily by sericite and graphite schist and thin-bedded quartzite of the Upper Schist Formation. These rocks strike east to northeast and dip to the south 24° to 55°. To the northeast, quartzite float is present suggesting the Upper Schist Formation is underlain by the Central Quartzite Formation. No mineral occurrences have been noted on the property.

Current Work and Results:

Soil sampling in 1974 outlined a number of coincident, low-order lead and zinc anomalies.

### Chambers Hill

CH  
United Keno Hill Mines Limited  
Elsa, Yukon Territory

Silver, Lead, Zinc  
105 M 13, 106 D 4  
(64°00'N, 135°35'W)

References: Green and Godwin (1963, p.9; 1964, p.13); Green (1965, pp.19-20; 1965, p.19); Findlay (1967, pp.24-25); Boyle (1965).

Claims: CH 1-224

#### Location and Access:

The CH claims are situated on Chambers Hill, approximately six miles northwest of Elsa. Access to the property in 1974 was mainly by helicopter.

#### History:

Showings on Chambers Hill have apparently been known since the 1930's but were not staked until 1961, when the Shanghai and U.R. properties were staked. During the following six years considerable work was carried out including extensive underground development and diamond drilling on several vein zones. Most of the Shanghai and all of the U.R. claims lapsed by 1969 and little work has been done in the area since then. The CH claims were staked in February and March 1974.

#### Description:

The CH claims were staked to cover the favourable Central Quartzite Formation which is thought to represent the north limb of an anticline with a south-west trending axis paralleling the South McQuesten River Valley. Units mapped on the property include thick- and thin-bedded quartzites, graphitic quartzite, graphitic schist and quartz-sericite schist, with minor limestone lenses. Intruding these rocks are two small stocks of Cretaceous granodiorite, local, sill-like bodies of quartz-feldspar porphyry and more widespread lens-like bodies of greenstone, and several small, discontinuous sills of biotite lamprophyre.

Structural lineations determined from drainage patterns and air photos trend northeast, northwest and north. Some of these lineations appear to be associated with faulting.

Numerous occurrences of pyrite, siderite, arsenopyrite and pyrrhotite are present, in addition to a number of galena and sphalerite showings.

#### Current Work and Results:

In 1974, United Keno carried out a program of geological mapping, stream and soil geochemical surveys and bulldozer trenching. The geochemical surveys outlined a number of low-order silver-lead-zinc anomalies, but only a few high-order anomalies. The bulldozer trenching uncovered some silver-lead-zinc occurrences, but assays of the mineralization were generally low.

DAVIDSON RANGE AREA

Rambler Hill

RAMBLER HILL PROPERTY  
Canadian Reserve Oil and Gas Limited  
1600 - 639 5th Avenue S.W.  
Calgary, Alberta  
T2P 0M9  
and  
Silver Spring Mines Limited  
204 - 2061 Beach Avenue  
Vancouver, British Columbia  
V2G 1Z3

Silver, Lead, Zinc  
106 D 3  
(64°05'N, 135°14'W)

References: Cockfield (1922, p.5); Green (1971,1972); Sinclair and Gilbert (1975, pp.14-15).

Claims: DOG 21-24; ZAP 1-32; MOSHE 1-12,15,16,19-22; PAUL 1-6; DEN 1-8

Location and Access:

The property is situated on Rambler Hill in the Davidson Range approximately 38 miles north-northeast of Mayo. Access is by a five-mile tote road which leaves the McQuesten Lake Road at a point 12.2 miles from the Mayo-Keno City Road.

History:

The claims cover the Lucknow showing which was originally discovered and explored by trenching in the early 1920's. Since then, there appears to have been little work on the property until the present time. Since 1971, most of the claims in the Rambler Hill area have been owned by Canadian Reserve Oil and Gas Limited and Silver Spring Mines Limited. The MOSHE claims were staked in 1974 to cover some open ground. Geological mapping and soil sampling plus some bulldozer trenching were carried out on the property in 1973.

Description:

The property is underlain mainly by the Jurassic Lower Schist Formation (Unit 7, Green, 1971) which includes greenstone sills of Cretaceous age (Unit 9, op.cit). On the east end of the claim group, the Lower Schist Formation is overlain by Lower Cretaceous Keno Hill Quartzite (Unit 8, op.cit.).

The Lucknow showing consists of vein mineralization along a north-south fault cutting Lower Schist Formation and greenstone sills. The vein is up to six feet across and dips 65° to 75° to the east. Vein material consists mainly of siderite with disseminated galena which has been exposed in trenches for eleven hundred feet along strike.

Current Work and Results:

Detailed geological mapping and soil sampling were carried out on the Lucknow showing in 1974. Grab samples from one of the trenches on the showing assayed as follows:



	<u>Ag (oz./ton)</u>	<u>Pb (%)</u>	<u>Zn (%)</u>
1.	4.62	14.07	0.02
2.	0.15	0.18	0.02
3.	0.15	0.03	0.01

The soil sampling outlined a roughly north-south trending silver anomaly east of the Lucknow zone. The Lucknow zone itself does not appear to have a strong geochemical expression in silver, lead, zinc or manganese.

## Mount Cameron

PAUL GROUP  
Bullion Mountain Mining Limited  
7049 Curragh Avenue  
Burnaby 1, British Columbia

Silver, Lead, Zinc, Copper  
106 D 3  
(64°05'N, 135°00'W)

References: Cockfield (1920, p.5; 1922, pp.1-6); Green (1971, pp.63-64; 1972, p.132).

Claims: PAUL 1-8

**Location and Access:**

The property is situated on a plateau to the northeast of Mount Cameron and is roughly 43 miles northeast of Mayo, from which it can be reached by helicopter. In 1974, equipment and supplies were hauled to the property via a bulldozer trail which leaves the McQuesten Lake Road and passes through the Bullion Mountain Mining CLARK property south of Clark Lakes.

### History:

The property was first explored in the late 1910's by a 30-foot adit and a 12-foot crosscut plus a number of surface trenches (Cockfield;1920, p.5; 1922, pp.1-6). Since then, there has apparently been very little work on the property. The property, currently owned by Falconbridge Nickel Mines Limited, was optioned to Bullion Mountain Mining Limited in 1974.

Description:

The property is underlain to the northeast by Precambrian and/or Cambrian sediments, mainly quartzite and phyllite but including minor limestone (Unit 3, Green, 1971). To the southwest, these sediments are overlain by slate and phyllite of Jurassic age (Unit 7, op.cit.).

The silver-lead-zinc-copper showings occur along a fault trending 030° which cuts and displaces a limestone band within Precambrian and/or Cambrian sediments. The fault has a surface expression of at least 1200 feet and is up to 50 feet wide. Vein material consists of siderite with galena, sphalerite, chalcopyrite, and quartz crystals. Scattered ore minerals were noted along the entire length of the fault workings (about 950 feet) but the heaviest distribution appeared to be along the 400 feet where both walls of the fault were in limestone. A grab sample of high-grade material taken from the dump by Green (1971) assayed 0.005 ounces per ton gold, 40.48 ounces per ton silver, 40.9 per cent lead, 10.75 per cent zinc, 0.28 per cent copper and 0.09 per cent antimony.

# Current Work and Results:

In 1974, Bullion Mountain Mining Limited carried out a program of geological mapping, trenching and 1,171 feet of diamond drilling in 7 holes. Six of the holes were drilled along a 650-foot strike length of the fault and gave the following results:

<u>Hole</u>	<u>Length of intersection (feet)</u>	<u>Ag (oz/ton)</u>	<u>Pb+Zn (%)</u>
74-1	23	1.12	7.43
74-2	46	0.29	8.49
74-3	37	3.5	8.1
74-4	44	1.06	20.97
74-5	20	8.38	32.28
74-6	3	0.12	8.76

Hole 74-7 apparently failed to intersect mineralization and no assays are reported.

## HESS MOUNTAINS AREA

### Rogue River

PLATA	Silver, Lead, Zinc
Dynasty Explorations Limited	105 N 9, 105 O 12
330 - 355 Burrard Street	(63°35'N, 132°02'W)
Vancouver 1, British Columbia	

References: Blusson and Tempelman-Kluit (1970, pp.29-32); Blusson (1974a); Sinclair and Gilbert (1975, pp.17-19).

Claims: PLATA 1-232, 241-258, 267-288; INCA 1-44

### Location and Access:

The claim groups are situated in the Bostock Range of the Hess Mountains roughly halfway between the Rogue and Hess Rivers. Access in 1974 was by fixed wing aircraft from Ross River, 108 miles to the south, to an airstrip six miles south of the property. The property was then reached by helicopter.

### History:

The claims were staked in August and September 1972 and July 1974. The property was first examined late in 1972 by a program of hand trenching, geochemical and geophysical surveys and diamond drilling. Work in 1973 consisted mainly of bulldozer trenching.

### Description:

The property is underlain by interbedded shale and chert of Mississippian age unconformably overlying or in fault contact with Proterozoic maroon and green slate with quartzite and limestone lenses. A quartz porphyry dyke trending east-west is the only intrusive on the property. The sediments strike west to west-northwest and are isoclinally folded and displaced by bedding plane thrusts. They are also cut by a set of conjugate faults trending roughly northeast and northwest. Vein mineralization consists of gold and silver in a central quartz vein in a major thrust zone and high

grade argentiferous galena associated with siderite gangue in the northeast- and northwest-trending faults. The latter are considered by Dynasty to have the greatest potential. In all, 42 separate showings have been discovered to date.

#### Current Work and Results:

In 1974, a number of important silver-lead occurrences were investigated by bulldozer trenching. Zone 2 on the PLATA claims consists of foliated galena with minor tetrahedrite and siderite gangue within a northeast-trending shear zone dipping  $55^{\circ}$  -  $70^{\circ}$  to the west. A 180-foot section along this zone grades 35 per cent lead and 84 ounces per ton silver over mineable widths.

Zone 6 on the PLATA group contains jarosite, anglesite and siderite fault gouge with galena blocks in highly sheared black shale and chert. Grade of the galena blocks averages 80 per cent lead and 235 ounces of silver per ton. The bedrock source of this high-grade float has not yet been discovered.

Another fault structure outlined a 70-foot length of yellow jarosite-siderite-anglesite fault gouge with minor galena with average thickness of two feet grading .17 ounces per ton gold, 70 ounces per ton silver and 15 per cent lead.

On the INCA claims, zone 7 contains massive galena with minor tetrahedrite in a northwest-striking fault zone up to 35 feet wide and dipping  $60^{\circ}$  to  $80^{\circ}$  to the northeast. Grades over a 70-foot long section on the zone average 27.5 per cent lead and 70 ounces of silver per ton.

Zone 12 on the INCA claims is a lens of massive galena with minor tetrahedrite, one to three feet thick, in a northeast-striking fault zone that dips  $60^{\circ}$  northwest. This zone has been traced for 130 feet along strike over which the grades over a five foot mining width are roughly 30 per cent lead and 47 ounces of silver per ton.

Geochemical soil sampling was also carried out on the PLATA and INCA claims in 1974. The samples were analyzed for silver and lead. Silver-lead anomalies were found to coincide very closely with known areas of near-surface mineralization and at least two additional zones of potential interest were outlined on the PLATA claims.

For 1975, the company has recommended a program of diamond drilling to test the possible tonnage potential of zones 2 and 6 on the PLATA Group, and 7 and 12 on the INCA Group.

North Stewart River

ECON  
Noranda Exploration Company Limited  
P.O. Box 2380  
Vancouver, British Columbia

Lead, Zinc  
106 B 6  
(64°20'N, 131°13'W)

Reference: Blusson (1974a).

Claims: ECON 1-36

Location and Access:

The property straddles the headwaters of the North Stewart River, 22 miles east of Bonnet Plume Lake. Access to Bonnet Plume Lake is by fixed wing aircraft from Mayo, 125 miles to the southwest. From the lake the property is reached by helicopter.

History:

The ECON claims were staked by the company in July and August 1973 to cover lead-zinc mineralization found during regional exploration of the Bonnet Plume River area.

Description:

Lead-zinc mineralization on the property occurs within a series of ferro-calcite veins which are controlled by and emplaced along east-west fractures related to a regional northwest-striking fault system. The host rocks are carbonates developed locally at the top of the Lower Cambrian Sekwi Formation. These are overlain unconformably by shales of the Ordovician to Devonian Road River Formation.

Current Work and Results:

The 1974 program consisted of detailed geological mapping, prospecting, and trenching of selected showings. No significant mineralization was found beyond that discovered during 1973. The trenching program was inconclusive since it was impossible to expose vein material below the zone of weathering. Company geologists recommended that further work should include a diamond drilling program to obtain fresh material below the zone of weathering and to test the depth extension of the mineralized veins.

MACMILLAN PASS AREA

MACMILLAN TUNGSTEN  
AMAX Northwest Mining Company Limited  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Tungsten  
105 0 8, 105 P 5  
(63°17'N, 130°07'W)

References: Green (1965, pp.48-50); Findlay (1969a, p.88; 1969b, pp.52-53); Allan and Findlay (1972, pp.97-101); Craig and Milner (1975); Sinclair and Gilbert (1975, pp.19-21).

Claims: PAT, BETTY, BORDER, PAR, PIT, DONNA, GULL; total of 89

Location and Access:

The claims straddle the Yukon-Northwest Territories boundary seven miles northwest of MacMillan Pass. A seven-mile access road connects with the Canol Road, the latter open for vehicular traffic during the summer months only.

History:

The property was discovered and staked in 1962 by Southwest Potash Corporation, a subsidiary of AMAX Incorporated. Surface exploration was carried out in 1963, 1964 and 1967 and roughly 35,000 feet of diamond drilling carried out in 1968, 1971 and 1972. Early in 1973, AMAX announced reserves of 30 million tons of 0.9 per cent tungsten trioxide (Northern Miner, February 8 1973). During the summer of 1973 the company carried out underground development and over 5,000 feet of drilling on the 6,200-foot level. In addition, bulk samples of the ore were sent out for metallurgical and milling tests.

Description:

Tungsten occurs as scheelite in pyroxene skarn developed in Lower Paleozoic limy sediments adjacent to a Cretaceous quartz monzonite stock. The scheelite is disseminated in four horizons constituting two zones termed the Upper and Lower Zones. These zones are conformable to bedding, striking westerly and dipping 10° to 30° to the south.

Current Work and Results:

Field work in 1974 involved preliminary environmental studies in the area. A preliminary engineering feasibility study was reported to be in progress.



KEN  
Canada Tungsten Mining Corporation Limited  
80 Niobe Street  
North Vancouver, British Columbia

Tungsten  
105 0 8  
(63°15'N, 130°05'W)

Reference: Blusson (1974a).

Claims: KEN 1-30

Location and Access:

The KEN claims are located roughly four miles northwest of MacMillan Pass on the Yukon-N.W.T. border. Access in 1974 was by helicopter from the Canol Road, which provides easy access to MacMillan Pass during the summer months.

History:

The KEN 1-30 claims were staked in May 1973 and subsequently acquired by Tye Lake Resources Limited and Titan-Polaris Mines Limited, who conducted geological mapping and soil and silt sampling in 1973. Several skarn zones were outlined and some associated scheelite was noted. In 1974, the property was under option to Canada Tungsten Mining Corporation Limited.

Description:

The property is underlain by black to grey argillite, limestone and impure limestone which strike 075° and dip to the south, varying from gentle to nearly vertical. Three separate skarn zones have been recognized. One of these is a dark-coloured skarn composed mainly of pyroxene with minor garnet, quartz and calcite; the other two are light-coloured skarns which contain tremolite. Scheelite has been observed in gravels from creeks in the vicinity of the skarn zones.

Current Work and Results:

A combined Turair electromagnetic and magnetic survey conducted in 1974 outlined a number of coincident electromagnetic and magnetic anomalies.

MOOSE  
Nuspar Resources Limited  
3165 Dunbar Street  
Vancouver, British Columbia

Barite  
105 0 1  
(63°04'N, 130°12'W)

References: Blusson (1974a); Sinclair and Gilbert (1975, p. 22).

Claims: MOOSE 1-4

Location and Access:

The property is situated roughly one-quarter mile northwest of the Canol Road at a point 12 miles southwest of MacMillan Pass. Ready access is provided by the Canol Road which is open during the summer months.

History:

The claims were originally staked in June 1972 as the BARITE claims. These claims lapsed and were restaked in August 1973 at which time some hand trenching was carried out.

Description:

The property is underlain by Devonian-Mississippian black shale and argillite with minor chert sandstone and chert-pebble conglomerate which have been folded along northwest-trending axes. Two zones of bedded barite are presently known, one up to 100 feet wide and 750 feet long and the second up to 100 feet wide and 600 feet long. The second zone lies en echelon to and about 300 feet northwest of the first zone. No sulphides have been noted associated with the barite.

Current Work and Results:

Nuspar completed roughly 1,400 feet of bulldozer trenching in 1974 on the barite zones. These zones, which are moderately to steeply dipping, are estimated by Nuspar to contain roughly three million tons of material uniformly grading 84 per cent barium sulphate and 12 to 14 per cent silica (Yukon News, December 12 1974). Drilling-mud grade barite requires a minimum of 92 per cent barium sulphate. Preliminary milling tests on large barite samples from bulldozer trenches demonstrate that crude ore can be efficiently up-graded by the use of low-cost wet concentrating tables to produce a product grading over 94 per cent barium sulphate with a specific gravity of 4.25 or greater. Nuspar is planning to conduct a drilling program on the property in 1975.

SLATE

Regency Resources Limited  
534 - 789 West Pender Street  
Vancouver, British Columbia

105 0 8  
(63°16'N, 130°17'W)

Reference: Sinclair and Gilbert (1975, p. 21).

Claims: SLATE 35-38, 57

Location and Access:

The claims belong to a group of 64 claims located immediately west of the Amax tungsten property and ten miles south of Keele Peak. Access is by helicopter from an airstrip about six miles south of the property on the Canol Road, or from Ross River 110 miles to the southwest.

History:

The claims were staked in May 1973. A preliminary magnetometer survey in November 1973 revealed a north-trending series of magnetic "low" areas through the centre of the property.

Description:

The property is underlain by several lithologic units ranging from Precambrian phyllite and mica schist to late Paleozoic shale and slate. On the Amax property to the east, the Road River shale is the host rock for the scheelite in areas where the shale has been intruded by Cretaceous grano-diorite and monzonite.

Current Work and Results:

During 1974, an electromagnetic survey and a magnetometer survey were carried out over a selected area of the north-trending magnetic "low"

discovered the previous year. No significant anomalies were discovered by these surveys.

## BONNET PLUME RIVER AREA

### Goz Creek

Goz Creek Property  
Barrier Reef Resources Limited  
1418 - 355 Burrard Street  
Vancouver, British Columbia  
V6C 2P8

Zinc, Lead  
106 C 7, 8  
(64°25'N, 132°30'W)

References: Sinclair and Gilbert (1975, pp.23-24); Blusson (1974a).

Claims: GOZ 1-8, LUV 1-8, DUO 1-8, STOL 1-8, VUH 1-8, WALT 1-8, LIN 1-8, ANN 1-8, BON 1-8, HAM 1-16, BAF 1-96, ANG 1-8, MEB fr.

### Location and Access:

The property straddles Goz Creek just above its confluence with Duo Creek. Mayo lies 118 miles to the southwest. Access is by fixed wing aircraft from Mayo to Goz Lake or Rackla Lake, and thence by helicopter to the property.

### History:

The original block of 192 claims was staked in June and July 1973, to cover widespread zinc-lead mineralization discovered during the course of a regional geological and geochemical reconnaissance program. The discovery resulted in a staking rush in the area which lasted through the following winter and on into the spring. Initial work on the Barrier Reef property consisted of detailed geological mapping and prospecting, measurement of stratigraphic sections and surface rock sampling.

### Description:

The property is underlain by a sequence of carbonates and clastics believed to be a facies equivalent of the Sekwi Formation of Lower Cambrian age. At the base of the section is a recessive phyllitic shale. This is overlain conformably by a resistant, grey, thin- to thick-bedded, calcareous dolomite, locally vuggy and pisolitic. Total thickness of this unit is about 1,150 feet. A disconformity separates it from an overlying very thin-bedded, dolomitic quartz sandstone about 150 feet thick. The sandstone is overlain by a thick-bedded to massive, fine to microcrystalline calcareous dolomite. Porous vuggy beds with local breccias and pisolitic textures are common. Total thickness of this unit is about 1,000 feet, although the upper part has been removed by erosion in the vicinity of Goz Creek. At the top of the exposed section is a very thin-bedded, silty shale and sandstone unit about 1,000 feet thick.

Regional deformation has resulted in a structural style characterized by west-northwest trending fold axes and faults. Two prominent westerly trending faults cut across the property, one across its northern edge and one about a mile farther south. Between these faults the upper dolomite unit is exposed in outcrop for about 5 1/2 miles in an east-west direction. Extensive showings of zinc and lead sulphides occur along this outcrop over a stratigraphic interval of about 400 feet.

The mineralization is mostly greenish-yellow and red crystalline sphalerite with minor amounts of galena. Secondary smithsonite, cerussite and hydrozincite are common. Minor boulangerite occurs with sphalerite at several locations. Trace amounts of pyrite and marcasite are present, and secondary limonite is widespread. Several modes of mineralization are recognized: matrix in silicified breccia beds, vug fillings, fracture fillings and disseminations in coarse crystalline dolomite.

The showings are visualized as irregular stratabound bodies of high-grade disseminated sphalerite, and as breccia with sphalerite matrix. These are surrounded by areas of lower grade sphalerite vug and fracture filling.

#### Current Work and Results:

The 1974 field program included more detailed mapping to determine the areal extent of the mineralized zones. This was followed by diamond drilling of the most important showing to determine the thickness and the depth of oxidation of the mineralized zones. A total of 6,639 feet was drilled in 20 holes. Most of the holes encountered good mineralized sections. Assay results were as high as 32 per cent sulphide zinc in one hole over an intersection of 98 feet (not necessarily true stratigraphic thickness). The drilling outlined roughly one and one half million tons of ten per cent sulphide zinc and three per cent oxide and carbonate zinc in dolomite beds dipping 5° to 10° to the south. The deposit is described by Barrier as "an elongated steep-walled collapse breccia mass about 100 feet wide having strataform 'wings' with an average thickness of about 20 feet surrounded by an irregular zone of disseminated zinc minerals" (Northern Miner, January 30 1975).

In 1975, the company plans to use two diamond drills on the property to determine tonnage potential in the main mineralized areas and to prospect other parts of the property.

BID  
Sicintine Mines Limited  
1425 - 355 Burrard Street  
Vancouver, British Columbia  
V6C 2G8

Zinc  
106 C 7, 8  
(64°27'N, 132°30'W)

Reference: Blusson (1974b).

Claims: BID 7-14, 25-32, 43-50, 57-64, and fractional claims 55 and 56

#### Location and Access:

The property covers a ridge on the west side of Goz Creek and immediately north of Barrier Reef's Goz Creek property. Access is by helicopter from Mayo, 118 miles to the southwest, or by float plane to Goz Lake and thence by helicopter to the property.

#### History:

The BID 7 to 14, 25 to 32, and 43 to 50 claims were staked in August 1973, to cover ground on the north side of Barrier Reef's Goz Creek property. The remaining ten claims were staked in September 1974.

#### Description:

The property is underlain by sediments that dip gently to the south and

are believed to be facies equivalents of the Sekwi Formation of Lower Cambrian age. In ascending order they include: brown to grey, recessive phyllitic shale; resistant, thin-to thick-bedded, medium to microcrystalline calcareous dolomite; arenaceous dolomite and dolomitic sandstone; and massive, fine to coarse-crystalline dolomite.

The upper dolomite unit is the primary host for the lead and zinc mineral occurrences on the Barrier Reef property to the south. The upper part of this unit has been removed from the BID claims by erosion; however, the lower part contains some smithsonite and hydrozincite with quartz as fracture fillings in a gossan zone. Analyses of representative rock chip samples show that the best section contains 2.68 per cent total zinc.

#### Current Work and Results:

In 1974 a consultant did geological mapping, prospecting and a geo-chemical soil survey on the property. The small showing described above was the only one found on the claim group. The soil survey outlined a broad zinc anomaly down-slope from the showing.

NAD	
Sicintine Mines Limited	106 C 8
1425 - 355 Burrard Street	(64°24'N, 132°29'W)
Vancouver, British Columbia	
V6C 2G8	

Reference: Blusson (1974b).

Claims: NAD 41-62

#### Location and Access:

The claims are located on Duo Creek, immediately south of Barrier Reef's Goz Creek property and two miles east of the junction of Goz and Duo Creeks. Access in 1974 was by float plane from Mayo to Porter Puddle, the local name of a small lake about eight miles west of the property, and then by helicopter to the property.

#### History:

The NAD 41-62 claims were staked in August 1973, shortly after the discovery of zinc-lead showings on the Barrier Reef property about two miles to the north.

#### Description:

The property is underlain by a thick section of Lower Cambrian brown and grey, laminated phyllitic shale and phyllite. These recessive rocks form negative topographical features such as the valley of Duo Creek in which the property is located. The overlying carbonates which host the lead and zinc mineralization on the Barrier Reef property have been removed by erosion from the NAD claims.

#### Current Work and Results:

No sulphide minerals were found during prospecting of the sparse outcrops in Duo Creek valley. A geochemical soil survey did not outline any significant lead or zinc anomalies. No additional work was recommended.



RYE, BID  
Action Resources Limited  
1425 - 355 Burrard Street  
Vancouver, British Columbia  
V6C 2G8

Zinc  
106 C 8  
(64°27'N, 132°27'W)

Reference: Blusson (1974b).

Claims: BID 15-18, 33-36, 51-54; RYE 9-14, 23-26, 35-40, 45-48; RYE 49-51 Fr.

Location and Access:

The claims straddle Goz Creek and are adjacent to the Barrier Reef Resources property to the southwest. The claim group is accessible by helicopter from Mayo or by float plane to Goz Lake and then by helicopter the remaining seven miles to the property.

History:

The 32 full-sized mineral claims of the group were staked in the summer of 1973 during the staking rush which followed Barrier Reef's zinc-lead discovery on the adjoining property to the southwest. An additional three fractional RYE claims were staked on September 10 1974.

Description:

The area is underlain by a sequence of Lower Cambrian sedimentary rocks of the Sekwi Formation. These include in ascending order: phyllitic shale; medium to microcrystalline calcareous dolomite; arenaceous dolomite and dolomitic quartz sandstone; microcrystalline to coarse crystalline, locally vuggy and brecciated dolomite; and thin-bedded to laminated silty shale and sandstone.

The structural style in the area is characterized by west-northwest trending fold axes and faults. A prominent northwest-trending reverse fault bisects the property and can be followed for at least ten miles.

The uppermost dolomite unit mentioned above is considered the primary host for the mineralization on the Barrier Reef property. However, this unit and the overlying shale and sandstone have been removed by erosion from the RYE-BID claim group. The lower calcareous dolomite was the only unit in which minor zinc mineralization was observed on the property.

Current Work and Results:

The 1974 field program consisted of prospecting, geological mapping and soil geochemistry. The soil survey was successful in outlining a broad zinc anomaly which appears to be related to an area of secondary zinc mineralization in the calcareous dolomite unit.

Recommendations by a consultant for further work included more detailed geological mapping, and a rock chip sampling and trenching program in order to fully evaluate the mineralized zone.

RYE  
Claymore Resources Limited  
1830 - 505 Burrard Street  
P.O. Box 49057, Bentall Centre #1  
Vancouver, British Columbia  
V7X 1G1

106 C 8  
(64°27'N, 132°24'W)

Reference: Blusson (1974b).

Claims: RYE 1-8, 15-22, 27-34, 41-44

Location and Access:

The claims are located on the east side of Goz Creek, adjacent to the Barrier Reef Resources property to the south and west. The property is accessible by helicopter from Mayo or by float plane to Goz Lake and then by helicopter the remaining seven miles to the property.

History:

The claims were staked in the summer of 1973 during the staking rush which followed Barrier Reef's lead-zinc discovery on the adjoining property to the southwest.

Description:

The area is underlain by a sequence of folded and faulted Lower Cambrian sedimentary rocks of the Sekwi Formation. These include in ascending order: phyllitic shale; medium to microcrystalline calcareous dolomite; arenaceous dolomite and dolomitic quartz sandstone; microcrystalline to coarse-crystalline, locally vuggy and brecciated dolomite; and thin-bedded to laminated silty shale and sandstone.

The structural style is characterized by west-northwest trending fold axes and faults. A prominent northwest-trending reverse fault crosses the southern part of the property and can be followed for at least ten miles. Bedding planes dip moderately to the south.

The uppermost dolomite unit mentioned above is considered the primary host for the mineralization on the Barrier Reef property. However, this unit and the overlying shale and sandstone unit have been removed by erosion from the RYE property. The lower two dolomite units have some potential as host rocks, but these two members are barren on the RYE property.

Current Work and Results:

The 1974 field program consisted of prospecting, geological mapping and soil geochemistry. No mineralization was found. The geochemical survey failed to outline any significant anomalies. No additional work was recommended.

BID, ACE  
Gentry Oil and Gas Limited  
534 - 789 West Pender Street  
Vancouver, British Columbia

Zinc  
106 C 7, 8  
(64°27'N, 132°31'W)

Reference: Blusson (1974b).

Claims: BID 1-6, 19-24, 37-42; ACE 33, 34

Location and Access:

The property is located about 120 miles northeast of Mayo, on the west side of Goz Creek and just north of Barrier Reef's Goz Creek property. Access during 1974 was by fixed wing aircraft from Mayo to Goz Lake, seven miles north-east of the claims, and thence by helicopter to the property.

History:

The claims were staked in July 1973, to cover open ground to the north of Barrier Reef's Goz Creek property.

Description:

Most of the property is underlain by southerly dipping, buff-weathering, grey dolomite of the Lower Cambrian Backbone Ranges Formation. The northern part of the property is underlain by a shale and siltstone unit of probable Hadrynian age. The contact between this unit and the overlying dolomite is apparently unconformable.

Minor amounts of zinc oxide are present in quartz veins and in a siliceous breccia zone within a fractured member of the dolomite unit.

Current Work and Results:

Work on the claims in 1974 consisted of prospecting and geological mapping. No sphalerite is associated with the zinc oxide showings which are apparently below economic grade.

ACE  
Chatex Industries Limited  
1425 - 355 Burrard Street  
Vancouver, British Columbia  
V6C 2G8

Zinc  
106 C 7  
(64°27'N, 132°34'W)

Reference: Blusson (1974b).

Claims: ACE 1-32, 35-48

Location and Access:

The claims are located about one mile north of Barrier Reef's Goz Creek property. Access is by helicopter from Mayo or by fixed wing aircraft to Goz Lake and thence by helicopter the remaining eight miles to the property.

### History:

The claims were recorded in October 1973, during the staking rush which followed Barrier Reef's zinc-lead discovery at Goz Creek.

### Description:

The property is underlain by clastics and carbonates which are assigned to the Lower Cambrian Sekwi Formation. At the base of the section is a phyllitic shale unit with minor interbeds of dolomite and limestone. This is overlain conformably by a resistant, thin- to thick-bedded, medium- to microcrystalline calcareous dolomite which is exposed in outcrop over most of the property. Above this unit is a sequence of arenaceous dolomite and dolomitic quartz sandstone. The local stratigraphy also includes an upper, massive, fine- to coarse-crystalline dolomite and a very thin-bedded silty shale and sandstone, but these units have been removed by erosion from the ACE claim group.

The upper dolomite is the primary host unit for the mineralization on the Barrier Reef property, where sphalerite and galena occur as breccia matrix, vug fillings and disseminations. Mineralization on the ACE group is restricted to the upper part of the lower calcareous dolomite unit. Smithsonite and hydrozincite, thought to be secondary weathering products after sphalerite, occur with quartz as fracture fillings in one 50 foot by 30 foot gossanous area.

### Current Work and Results:

The 1974 field program consisted of geological mapping, prospecting and a geochemical soil survey. A representative rock chip sample taken from the main showing assayed 9.88 per cent total zinc. The soil survey outlined a strong, widespread zinc anomaly in the area of the showing. A consultant recommended a program of additional detailed prospecting and rock sampling to evaluate the property.

TOM  
Harman Management Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia

Zinc, Lead  
106 C 7  
(64°29'N, 132°40'W)

Reference: Blusson (1974b).

Claims: TOM 13-16, 29-32, 34, 36, 38, 40, 42, 44-64

### Location and Access:

The property is two miles east of Harrison Creek in the Bonnet Plume Range, 115 miles northeast of Mayo and ten miles west-southwest of Goz Lake. Access is by fixed wing aircraft from Mayo to Goz Lake, and from there to the property by helicopter.

### History:

The claims were staked in the fall of 1973 to cover favourable ground about five miles northwest of Barrier Reef's Goz Creek property.

Description:

The property is underlain by a sequence of Hadrynian to Lower Cambrian sedimentary rocks with a moderate southeasterly dip. Shale and siltstone of the Hadrynian Sheepbed Formation are overlain to the southeast by dolomite, quartzite and shale of Lower Cambrian age. Vein quartz commonly occurs as fracture and vug fillings in the dolomite. Rarely, disseminated lead and zinc sulphides are associated with the quartz.

Current Work and Results:

Work on the property in 1974 consisted of prospecting, geological mapping, and geochemical silt and soil sampling. A zinc geochemical anomaly was outlined on a ridge on the northeast part of the property. This anomaly appears to be related to a known showing of sphalerite in a vuggy dolomite unit.

ANN, GAL, GIN, GOZ, PAL, ZOG  
Conwest Exploration Company Limited  
Tenth Floor, 85 Richmond Street West  
Toronto, Ontario.  
M5H 2G1

Zinc, Lead  
106 C 7  
(64°25'N, 132°40'W)

Reference: Blusson (1974b).

Claims: ANN 1-64; GAL 1-50; GIN 1-70; GOZ 9-80; PAL 1-51, PAL 52 -58Fr., PAL 59-60, PAL 61 -67Fr.; ZOG 1-8. Total 331 full-sized and fractional claims.

Location and Access:

The property is on the north side of Goz Creek about three miles upstream from its confluence with the Bonnet Plume River. Access is by float plane from Mayo to a small lake locally known as Porter Puddle, and then by helicopter the remaining four miles to the property.

History:

Three hundred and one of the claims were staked in the summer of 1973, after Barrier Reef Resources Limited announced the discovery of lead-zinc mineral showings on Goz Creek. The remaining 30 fractional and full-sized claims were staked during the 1974 field season.

Description:

The property is underlain by Lower Cambrian sedimentary rocks. Relatively flat-lying carbonates and shale in the northern two-thirds of the property appear to be thrust southward against steep, northerly dipping shale, phyllite and carbonates. A major, west-trending fault is the boundary between the two structural zones.

Starting from the base, the stratigraphic sequence in the area is as follows: phyllite; intraclastic and microcrystalline limestone; slightly phyllitic shale with interbedded micrite and sandstone; thin-to thick-bedded, fine to microcrystalline dolomite; shale with interbedded sandstone and limestone; thick-to thin-bedded, medium to microcrystalline, pisolitic dolomite; cross-bedded quartz sandstone and quartzite; and thick-bedded, medium to microcrystalline dolomite.



On the property, the uppermost dolomite unit, primary host for the sphalerite and galena showings on the Barrier Reef property, appears to be barren of economic minerals. The pisolitic dolomite unit, which covers most of the northern structural zone on the property, has minor occurrences of sphalerite and secondary zinc minerals in breccia zones, fractures and vug fillings. Galena also occurs in narrow fractures.

The third dolomite unit, present in the southern structural zone, contains zinc oxides and carbonate on weathered surfaces of small breccia zones. Outcrops of the same unit in Harrison Creek to the west of the property contain sphalerite and galena with pyrite as breccia matrix.

#### Current Work and Results:

Work in 1974 consisted of prospecting, geological mapping, stream sediment geochemistry and soil geochemistry. Stream sediment anomalies discovered in the northern part of the property were explained by the small occurrences of lead and zinc minerals in the pisolitic dolomite unit. Stream sediment and soil anomalies in the southwest part of the property were found to overlie the lower dolomite unit.

YK  
Tournigan Mining Explorations Limited  
709 - 535 Thurlow Street  
Vancouver, British Columbia

Zinc  
106 C 7  
(64°24'N, 132°40'W)

Reference: Blusson (1974b).

Claims: YK 1-40

#### Location and Access:

The property is located on Goz Creek, about four miles upstream from its confluence with the Bonnet Plume River. Access is by float plane from Mayo to a small lake locally known as Porter Puddle, and from there to the property by helicopter.

#### History:

The claims were staked in July 1973, following the discovery by Barrier Reef Resources Limited of zinc-lead mineralization in the area. Subsequently they were acquired by Tournigan Mining Explorations Limited.

#### Description:

The area is underlain by Lower Cambrian sediments which can be divided into five mappable units. At the base of the section is a greenish-grey, laminated phyllite with lenses of black, medium-crystalline limestone. This is overlain by a thin-bedded, orange-weathering, pale greenish-grey, micro-crystalline limestone. The upper beds of this unit consist of an intraformational breccia. The limestone is overlain by a medium to dark grey, phyllitic shale unit. This is covered by a thin-bedded, dark grey, fine-crystalline dolomite with small breccia zones caused by disrupted bedding. To the west of the property a sequence of shale overlies the dolomite, but this shale unit has been removed by erosion from the YK claims.

Outcrop is restricted to the stream-bed of Goz Creek and the ridges of low lying hills. The bedding dips steeply to the north-northwest. The

property appears to be on the north limb of a regional anticline which plunges moderately to the west. Two major faults, both of which strike approximately  $130^{\circ}$ , cut across the claim block.

A small outcrop of dolomite near Goz Creek contains pyrite as a matrix in small breccia zones which occur along disrupted beds of this unit. Traces of sphalerite are associated with the pyrite matrix. The dolomite is believed correlative with a lead-zinc bearing horizon at Harrison Creek, four miles to the west. Its stratigraphic relationship to the mineralized units of Barrier Reef's property to the east is uncertain since a major fault lies between the Barrier Reef property and the YK claims.

#### Current Work and Results:

During 1974 detailed geological mapping was carried out on the YK claims. A reconnaissance geochemical soil survey was also done on the property. The small outcrop described above was the only showing found on the property. A shallow trench was blasted across 20 feet of this outcrop, exposing more mineralized dolomite. The soil survey outlined one small zinc-lead anomaly in the northwestern part of the property near Goz Creek. Anomalous zinc samples were also scattered along Goz Creek. Since the anomalous samples were found on overflow channels of Goz Creek, they may be the result of mineralized float from upstream. The mineralized dolomite outcrop does not correlate with any of the creek anomalies, although an accurate geochemical response to the mineralization may be masked by the alluvium and the glacial till.

A consultant recommended that an I.P. survey be carried out on the northern part of the claim group to test for the existence of sulphide bodies in the dolomite unit.

#### FUN

Yukon Revenue Mines Limited  
c/o Cominco Limited  
2200 - 200 Granville Square  
Vancouver, British Columbia

106 C 7  
( $64^{\circ}23'N$ ,  $132^{\circ}46'W$ )

Reference: Blusson (1974b).

Claims: FUN 1-4

#### Location and Access:

The property is on the north side of the Bonnet Plume River, near the mouth of Goz Creek and about 110 miles northeast of Mayo.

#### History:

The claims were recorded in September 1973.

#### Description:

The property is underlain by slate, siltstone, sandstone, conglomerate and dolomite of Hadrynian age.

Current Work and Results:

Coast Copper Company Limited, a 95% owned subsidiary of Cominco, did geological mapping and soil geochemistry on the claims in 1974. One geochemical anomaly was outlined by the work.

DU	
Harman Management Limited	106 C 7
821 - 602 West Hastings Street	(64°24'N, 132°34'W)
Vancouver, British Columbia	
and	
Box 4509	
Whitehorse, Yukon	

Reference: Blusson (1974b).

Claims: DU 1-40

Location and Access:

The property is on the south side of Goz Creek, adjacent to the south boundary of Barrier Reef's Goz Creek property. Access is by fixed wing aircraft from Mayo to a small lake locally known as Porter Puddle, and from there by helicopter the remaining six miles to the property.

History:

The claims were recorded in August 1973.

Description:

The property is underlain by interbedded shale, limestone, dolomite and minor sandstone of Hadrynian age. The beds strike easterly and dip to the south.

Current Work and Results:

Work in 1974 consisted of prospecting, geological mapping and geochemical sampling of stream sediments. Lead and zinc content of the stream sediments was not found to be anomalous.

AXE, NEST	Zinc, Lead
Arctic Red Joint Venture	106 C 9, 10
c/o Welcome North Mines Limited	(64°34'N, 132°32'W)
8 - 1161 Melville Street	
Vancouver, British Columbia	
V6E 2X7	

Reference: Blusson (1974a).

Claims: AXE 1-40; NEST 1-6

Location and Access:

The property is located on an upper tributary of the Snake River, about ten miles north of Barrier Reef's Goz Creek property. Access is by helicopter from Mayo, 120 miles to the southwest.

### History:

The claims were staked early in 1974 to cover favorable carbonate strata in an area of known lead and zinc occurrences.

### Description:

The property straddles the valley of a tributary of the Snake River, with elevations ranging from 4,000 feet in the valley floor to 5,500 feet on the highest slopes. Lower elevations on the property are underlain by gently undulating, flat-lying, light grey, bedded dolomite of Ordovician to Devonian age. Above the 5,000 foot level, the property is underlain by recessive, grey to black shale of the Devono-Mississippian Besa River Formation. The south-east corner of the claim block is underlain by undifferentiated shale of the Road River and Besa River Formations.

Two areas of lead and zinc mineral occurrences, referred to as the upper and lower mineralized bands, were discovered on the AXE claim group. The upper mineralized band was not observed in place, but is indicated by float material at the 4,400 foot level. Yellow sphalerite and smithsonite encrustations rim coarse, calcite-filled voids in the dolomite rock. Locally, calcite with subordinate sphalerite forms irregular veinlets. The upper mineralized band can be traced for some 1,400 feet along the western side of the valley.

The lower mineralized band lies within 100 feet vertically of the valley floor. Sphalerite occurs locally as rims around sparry calcite void and fracture fillings within a band of dolomite 20 to 40 feet thick, which can be traced about 2,000 feet along the valley wall.

A sphalerite showing in the eastern part of the property (NEST claims) is correlated with the lower mineralized band on the AXE claims.

### Current Work and Results:

The 1974 program of geological mapping and prospecting discovered interesting lead-zinc mineral occurrences. Company geologists recommended additional prospecting and soil geochemistry to evaluate the showings.

BAR	Zinc, Lead
A. Harman	106 C 10
and	(64°35'N, 132°33'W)
C. Toporowski	
c/o 821 - 602 West Hastings Street,	
Vancouver, British Columbia	

Reference: Blusson (1974a).

Claims: BAR 1-40

### Location and Access:

The property is located on an upper tributary of the Snake River, about 12 miles north of Barrier Reef's Goz Creek property. Access is by fixed wing aircraft from Mayo to Goz Lake, and from there by helicopter the remaining seven miles to the property.

### History:

The claims were staked on March 27 1974, during the rush into the area generated by Barrier Reef's discovery on Goz Creek the previous summer.

### Description:

The property is underlain by a relatively flat-lying section of Silurian-Devonian limestone and dolomite. This unit is exposed in sections at least 200 feet thick in bluffs and along stream cuts. The carbonate unit is overlain by black to brown shale of possible Upper Devonian age. Five showings have been discovered within the carbonate unit. These showings occur in two modes: as massive, light brown, resinous sphalerite replacing fragments in an algal reef, and as veinlets of resinous sphalerite and white sparry calcite in breccia zones within the carbonate unit. Galena is also sparsely disseminated through the breccia zones.

The showings occur at various locations over a horizontal distance of 4,500 feet. In some of the showings, local concentrations of sphalerite average 15 to 20 per cent zinc. Mineralized beds are up to 25 feet thick and some have been traced horizontally for up to 500 feet. Continuity between the showings has not been established.

### Current Work and Results:

During the 1974 season the five main showings were discovered by prospecting, rock sampling and geological mapping. The consultant recommended careful topographic and geological mapping to determine the continuity and extent of the showings. Geochemical and I.P. surveys were also recommended.

### Duo Creek

PLU	
GBX Mines Limited (80%)	106 C 8
and	(64°25'N, 132°25'W)
Welcome North Mines Limited (20%)	
8 - 1161 Melville Street	
Vancouver, British Columbia	

Reference: Blusson (1974a).

Claims: PLU 1-40

### Location and Access:

The PLU claims straddle Duo Creek about five miles upstream from where it joins Goz Creek. The property is accessible by float plane from Mayo to Rackla Lake and by helicopter the remaining 27 miles to the claims.

### History:

The claims were acquired during the staking rush which followed Barrier Reef's important lead-zinc discovery on Goz Creek in 1973. They adjoin the Barrier Reef property to the west.

### Description:

The area is underlain by Hadrynian to Lower Cambrian sediments (Blusson,



1974a). To the west of the claim group a reefal dolomite unit (equivalent to dolomite of the Sekwi Formation) is host for the lead-zinc mineralization on the Barrier Reef and Cypress properties. This unit does not outcrop on the PLU claims, which are covered with thick overburden. The dolomite unit may not continue below the claim group due to interruption by a major fault to the west of the property.

#### Current Work and Results:

The 1974 field program consisted of geological mapping, limited by the extensive overburden, and a geochemical soil survey. Soil samples were taken at 300 foot intervals on cross lines 400 feet apart. The cross lines were marked off from the claim staking lines, which were used as base lines. From a total of 463 stations over 20.7 miles of grid lines, a total of 399 samples were collected and analyzed. Two large zinc-lead anomalous areas were located, one of which may be considered as a future exploration target. A consultant recommended that the claims be retained pending further evaluation and publication of exploration results on the adjoining properties.

GUS  
SEREM Limited  
505 - 850 West Hastings Street  
Vancouver, British Columbia  
V6C 1E1

Zinc, Lead  
106 C 8  
(64°26'N, 132°20'W)

Reference: Blusson (1974a).

Claims: GUS 1-20

#### Location and Access:

The GUS claims lie six miles northeast of the confluence of Goz and Duo creeks. Access is by float plane from Mayo to Goz Lake and thence by helicopter.

#### History:

The claims were staked in July 1973, following the zinc-lead discovery by Barrier Reef on Goz Creek. The claims were subsequently acquired by SEREM.

#### Description:

The GUS property is underlain by dolomite and quartzite of the Backbone Range Formation of Lower Cambrian age and Hadrynian Grit Unit rocks (Blusson, 1974a). Sphalerite occurs in two stratigraphic horizons near the top of the dolomite. The two horizons are roughly 20 feet thick, separated by a lens of fine-grained quartzite. The sphalerite is dominantly green or brown and occurs as euhedral crystals lining vugs in the dolomite. Quartz, dolomite and calcite crystals are associated with the sphalerite. Galena occurs in fractures and veinlets within the dolomite horizons.

#### Current Work and Results:

In 1974, SEREM carried out geological mapping and geochemical surveys over the GUS claims. Several surface showings were found on the eastern part of the property associated with soil geochemical anomalies.

RUM  
Colby Mines Limited  
519 - 409 Granville Street  
Vancouver, British Columbia

Zinc, Lead  
106 C 8  
(64°27'N, 132°20'W)

Reference: Blusson (1974a).

Claims: RUM 1-58

Location and Access:

The claims lie between Goz and Duo Creeks roughly 120 miles northeast of Mayo. Access in 1974 was by fixed wing from Mayo to Goz Lake and thence by helicopter to the property.

History:

The claims were staked in October 1973 in the rush following the discovery of high-grade zinc by Barrier Reef.

Description:

The property is underlain by Helikian and Lower Paleozoic sediments trending northwest and generally dipping about 30° to the southwest. Black-brown, thinly bedded shale of probable Helikian age is exposed in the northwest part of the property. The shale is overlain by grey, buff-weathering, Lower Cambrian dolomite which underlies the major part of the claims. The Lower Cambrian dolomite is overlain in turn by light grey dolomite and black shales in the northeast part of the property.

Current Work and Results:

Geological mapping and geochemical sampling were carried out in 1974. Minor sphalerite and galena with quartz was found in fractures and vugs in the Lower Cambrian dolomite and secondary zinc was noted in the grey dolomite overlying the Lower Cambrian dolomite. Rock samples showed negligible amounts of lead and zinc and the mineralization in both cases is probably too limited to be of importance.

Geochemical sampling of the streams on the property showed only a few spot highs for lead and zinc which can be accounted for by the minor occurrences of sphalerite and galena in the dolomites.

LIZ  
Cream Silver Mines Limited  
202 - 900 West Pender Street  
Vancouver, British Columbia  
V6C 1L1

Lead, Zinc  
106 C 8  
(64°26'N, 132°18'W)

Reference: Blusson (1974a).

Claims: LIZ 1-8, 17-24

Location and Access:

The claims are on the north side of Duo Creek, about five miles east of Barrier Reef's Goz Creek property. Access is by helicopter from Mayo.

History:

The claims were staked in 1973 following Barrier Reef's lead-zinc discovery on Goz Creek.

Description:

The property is underlain by shale, siltstone, quartzite, limestone and dolomite of Hadrynian to Cambrian age. The rocks are strongly folded and faulted, with fold axes plunging to the east and faults trending north and southeast. Sphalerite, smithsonite and minor galena occur as breccia matrix associated with fault zones in the carbonate rocks.

Current Work and Results:

Work in 1974 consisted of geological mapping and a geochemical soil survey. Several coincident zinc-lead soil anomalies appear to correlate with fault-breccia zones in the carbonate rocks. The consultant recommended detailed mapping, trenching and sampling to evaluate the anomalous areas.

LIZ  
Acheron Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
V6C 1Z7

Zinc  
106 C 8  
(64°26'N, 132°16'W)

Reference: Blusson (1974a).

Claims: LIZ 9-16, 25-32

Location and Access:

The claims are located on the northwest side of Duo Creek, about five miles east of Barrier Reef's Goz Creek property. Access is by helicopter from Mayo.

History:

The claims were staked in 1973 during the staking rush which followed Barrier Reef's discovery on Goz Creek.

Description:

The property is underlain by shale, argillite, quartzite, limestone and dolomite of Hadrynian to Cambrian age. Several northwest-trending faults and shear zones cut across the property. Smithsonite is present in some carbonate float rock.

Current Work and Results:

Work in 1974 consisted of geological mapping and a geochemical soil survey. Soil samples were analyzed for lead and zinc. No significant anomalies were recognized.

RAF  
Harman Management Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia.

Lead, Zinc  
106 C 8  
(64°28'N, 132°13'W)

Reference: Blusson (1974a).

Claims: RAF 1-40

Location and Access:

The property is located on the northwest side of Duo Creek about 125 miles northeast of Mayo. Access is by fixed wing aircraft from Mayo to Goz Lake, six miles northwest of the claims, and from there by helicopter to the property.

History:

The claims were staked in August 1973, about eight miles northeast of Barrier Reef's Goz Creek property.

Description:

The property is underlain mostly by northwest-striking dolomitic rocks of Cambrian to Silurian age. Black shale of the Road River Formation is exposed at the southwest end of the property. Minor galena and sphalerite occur as vug and fracture fillings in some of the dolomite units.

Current Work and Results:

Work on the property consisted of prospecting, geological mapping and geochemical soil sampling. Zinc and lead content of the soils were found to be within the range of background values for the area.

TYE  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Zinc, Lead  
106 C 8  
(64°25.5'N, 132°21'W)

Reference: Blusson (1974a).

Claims: TYE 1-20

Location and Access:

The property lies on the north side of Duo Creek, about five miles east of Barrier Reef's Goz Creek discovery. Access during 1974 was by helicopter from Mayo.

History:

The claims were staked in the summer of 1973, shortly after the discovery of lead-zinc showings by Barrier Reef Resources Limited at Goz Creek.

Description:

The property is underlain by shale, siltstone, quartzite, limestone and dolomite of the Lower Cambrian Backbone Ranges Formation. Fault zones are

common. Limestone breccias near some of these zones contain sphalerite, smithsonite, quartz and calcite as matrix.

Current Work and Results:

Geological mapping and grid soil sampling were done on the property in 1974. Samples were analyzed for lead and zinc, but no significant anomalies were found.

HA	
Spectroair Explorations Limited	106 C 6
c/o Cominco Limited	(64°25'N, 132°14'W)
2200 - 200 Granville Square	
Vancouver, British Columbia	

Reference: Blusson (1974a).

Claims: HA 1-56

Location and Access:

The property is located on Duo Creek, 16 miles east of a small lake locally known as Porter Puddle. Access is by fixed wing aircraft from Mayo to Porter Puddle and from there by helicopter to the property.

History:

The claims were recorded on 4 September, 1973 to cover open ground about seven miles east of Barrier Reef's Goz Creek property.

Description:

Most of the property is covered by overburden. The area of immediate interest is underlain by dolomite, limestone, shale and sandstone of Lower Cambrian age.

Current Work and Results:

Geological mapping and a geochemical soil survey did not reveal any mineral showings or geochemical anomalies.

CAT, BEAR, MOUSE, JMA	Lead, Zinc, Silver
Yukon Revenue Mines Limited	106 C 6
c/o Cominco Limited	(64°27'N, 133°07'W)
2200 - 200 Granville Square	
Vancouver, British Columbia	

Reference: Blusson (1974b).

Claims: CAT 1-12, 17-32; BEAR 1-24, 33-48; MOUSE 1-48; JMA 1-9

Location and Access:

The contiguous claim groups form a block on the north side of the Bonnet Plume River, about 12 miles downstream from the mouth of Goz Creek and 102 miles northeast of Mayo. Access is by fixed wing aircraft from Mayo to a small lake locally known as Porter Puddle, and from there by helicopter to the



property.

History:

The CAT, BEAR and MOUSE claims were recorded in September 1973. The JMA claims were added in August 1974.

Description:

The property is underlain by a thick sedimentary sequence of shale, siltstone, conglomerate, dolomite and sandstone, ranging in age from Hadrynian to Silurian. Minor amounts of sphalerite and galena occur in fractures in a Hadrynian dolomite unit.

Current Work and Results:

Geological mapping was done on all claim groups in 1974. Geochemical silt and soil surveys were carried out on the BEAR, MOUSE and CAT claims. Several trenches were dug on the BEAR 43 claim. The work was carried out by Coast Copper Company Limited, a 95% owned subsidiary of Cominco.

Harrison Creek

BOB, GEP, GYK, KIS, RAY  
Great Plains Development Company of  
Canada Limited  
736 - 8th Avenue South West  
Calgary, Alberta

Lead, Zinc  
106 C 7  
(64°25'N, 132°49'W)

Reference: Blusson (1974b).

Claims: BOB 1-8; GEP 1-8; GYK 1-8; KIS 1-8; RAY 1-8

Location and Access:

The property straddles Harrison Creek about two miles upstream from its confluence with the Bonnet Plume River. Access is by float plane from Mayo to Porter Puddle (local name of a small lake) and then by helicopter three miles to the property.

History:

The claims were staked in July 1973, following Barrier Reef's lead-zinc discovery on Goz Creek about ten miles to the east. Showings of galena and sphalerite were discovered on the Harrison Creek property during preliminary soil geochemistry and geological mapping in 1973.

Description:

The property is underlain by a sequence of Lower Cambrian shale and carbonates which dip steeply to the northeast. The oldest unit exposed is a slightly phyllitic shale with some interbedded micrite and sandstone. This is overlain by a light to medium grey, thin-bedded, finely crystalline dolomite that is vuggy in darker sequences. To the west this unit becomes a medium-crystalline siliceous dolomite. Dolomite breccia occurs in the lower three hundred feet of this unit and has a matrix of white to dark grey dolomite. Overlying the dolomite is a medium to dark grey shale with some interbedded limestone and sandstone. This is overlain successively by a thin-

bedded to massive, fine-crystalline reefal limestone and grey phyllitic shale.

Sphalerite, pyrite and galena occur as vug fillings, breccia matrix and on fractures throughout the dolomite. The main showing in Harrison Creek consists of pyrite, sphalerite, white sparry dolomite and galena as matrix in a solution collapse breccia.

#### Current Work and Results:

The 1974 program consisted of prospecting, geological mapping, geochemical soil sampling and an I.P. survey. Several areas of coincident lead-zinc soil anomalies were outlined. The I.P. survey outlined a resistivity anomaly which extends along the strike of the dolomite host rock and is also coincident with the geochemical anomalies. Several anomalies were tested with five diamond-drill holes totalling 1,298 feet.

The consultant recommended additional diamond drilling and a detailed I.P. survey to evaluate the property.

CYR, FXE, ED, PB, ZN, CYP  
SCREW, ZOT, WHI  
Cypress Resources Limited  
705 - 900 West Hastings Street  
Vancouver, British Columbia  
V6C 1B2

Zinc, Lead  
106 C 6, 7  
(64°25'N, 132°53'W)

and  
British Newfoundland Exploration Limited  
704 - 602 West Hastings Street  
Vancouver, British Columbia

References: Blusson (1974b); Sinclair and Gilbert (1975, p.25).

Claims: CYR 9-40; FXE 1-8; ED 1-8; PB 1-8; ZN 1-8; CYP 1-40; SCREW 1-16;  
ZOT 1-22; WHI 1-24

#### Location and Access:

The claims form a single block on the northeast side of the Bonnet Plume River, 110 miles northeast of Mayo and 13 miles northeast of Rackla Lake. Access in 1974 was by fixed wing from Mayo to Rackla Lake or a small lake known locally as Porter Puddle, six miles southeast of the property and then by helicopter.

#### History:

The majority of the claims were staked in July and August 1973, following the lead-zinc discovery by Barrier Reef Resources on Goz Creek. Preliminary mapping and prospecting were carried out by Cypress Resources Limited in 1973 and three short holes were drilled, one of which encountered 28 feet of 8.3 per cent zinc (Northern Miner, November 1, 1973). Work on the property in 1974 was carried out by British Newfoundland Exploration Limited (Brinex) under an agreement with Cypress. The ZOT and WHI claims and fractions were staked during the summer of 1974.

Description:

The property is underlain by a thick sedimentary sequence ranging in age from Hadrynian to Mississippian. The strata strike northwest and dip to the northeast at 40° to 70°. Company geologists have divided the Hadrynian to Lower Cambrian sequence into four units: a Middle Hadrynian unit up to 3200 feet thick consisting of dolomite, siltstone and shale; an Upper Hadrynian unit 1800 to 2400 feet thick of medium- to thick-bedded dolomite; an Upper Hadrynian (?) to Lower Cambrian unit of porous, buff-coloured dolomite 450 to 500 feet thick and a Lower Cambrian unit consisting of 1600 feet of black shale.

Zinc-lead deposits occur mainly in the Upper Hadrynian (?) to Lower Cambrian dolomite along a strike length of 3.5 miles. Pale sphalerite is the main sulphide mineral and occurs as vug and breccia fillings. Associated minerals include coarse-grained galena, framboidal pyrite, quartz, sparry dolomite, barite and pyrobitumen. Sphalerite also occurs locally as detrital grains associated with quartz grains deposited in solution channels in dolomite. These deposits show typical sedimentary features such as laminated and graded bedding. Coarse-grained galena is present in late-stage, cross-cutting joints and fractures.

Current Work and Results:

In 1974, Brinex carried out an extensive program of exploration on the property which included geological mapping, soil and stream geochemical sampling, a limited I.P. survey, hand trenching and 3000 feet of diamond drilling in seven holes. Mineralization of the dolomite appeared to be erratic and discontinuous in grade and size and no significant intersections were reported from the drilling.

MX

Harman Management Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia

106 C 7  
(64°26'N, 132°46'W)

Reference: Blusson (1974b).

Claims: MX 1-40

Location and Access:

The property is on the east side of Harrison Creek, about five miles west of Barrier Reef's Goz Creek property. Access is by fixed wing aircraft from Mayo to Porter Puddle (local name for a small lake) and then by helicopter four miles north to the property.

History:

The claims were staked in early 1974.

Description:

The property is underlain by black and brown shale of the Lower Cambrian Sheepbed Formation, with minor interbedded sandstone and conglomerate. In the southwest corner of the claim group, this unit is in fault contact with dolomite of Hadrynian age.

### Current Work and Results:

Following a preliminary examination of the property, a more detailed program of geological mapping, prospecting and soil geochemistry was carried out on the southwestern part of the claim group. Results of the soil survey were discouraging, and no economic minerals were observed in outcrop.

PESO  
Nicola Copper Mines Limited  
101 - 535 Thurlow Street  
Vancouver, British Columbia

106 C 7  
(64°26'N, 132°50'W)

Reference: Blusson (1974b).

Claims: PESO 1-32

### Location and Access:

The property is on the west side of Harrison Creek about three miles upstream from the Bonnet Plume River. Access during 1974 was by float plane from Mayo to Goz Lake, 16 miles northeast of the claim group, and from there by helicopter to the property.

### History:

The claims were staked early in 1974 during the staking rush generated by Barrier Reef's Goz Creek discovery the previous summer.

### Description:

The property is underlain by a sequence of dolomite, limestone, shale and slate of Hadrynian to Mississippian age. The northwesterly dipping sediments have undergone low grade regional metamorphism. Two southwesterly trending faults cut across the property. The more southerly one is a thrust fault which has brought Cambrian and older strata on the north into contact with the Devonian Besa River shale on the south. The northern fault appears to be normal with the downthrown side to the north. No sulphide minerals were observed in any of the potentially favorable carbonate rock units on the property.

### Current Work and Results:

The 1974 program consisted of geological mapping and a geochemical soil survey. Soil samples were collected at 400 foot intervals on lines 500 feet apart and were analyzed for lead and zinc. No significant geochemical anomalies were outlined by the work.

HD  
Tacoma Resources Limited  
145 - 890 West Pender Street  
Vancouver, British Columbia

106 C 7  
(64°28'N, 132°48'W)

Reference: Blusson (1974b).

Claims: HD 1-28

Location and Access:

The property is on the east side of Harrison Creek, five miles upstream from the Bonnet Plume River. Access is by fixed wing aircraft from Mayo to a small lake locally known as Porter Puddle, and from there by helicopter the remaining seven miles to the property.

History:

The claims were staked late in the 1973 field season during the rush which followed Barrier Reef's discovery at Goz Creek, nine miles to the southeast.

Description:

The property, largely covered with overburden, is underlain by relatively flat-lying dolomite of Hadrynian or Lower Cambrian age. These rocks are similar in age and lithology to the zinc-bearing dolomite on the Cypress Resources property to the southwest and the Barrier Reef property to the southeast.

Current Work and Results:

Work in 1974 consisted of a geochemical soil survey and a magnetometer survey. Soil sample analysis for zinc outlined two anomalies in the northern part of the grid area. The magnetometer survey did not reveal any significant anomalous zones.

BOX  
Junex Resources Limited  
837 West Hastings Street  
Vancouver 1, British Columbia

Zinc, Lead  
106 C 7  
(64°25'N, 132°49'W)

Reference: Blusson (1974b).

Claims: BOX 1-21

Location and Access:

The property straddles Harrison Creek about two miles upstream from its confluence with the Bonnet Plume River. Access is by float plane from Mayo to Rackla Lake, and from there by helicopter the remaining 15 miles to the property.

History:

The claims were staked in March and June 1974.



Description:

Outcrop on the property is minimal, and is limited mostly to the canyon walls of Harrison Creek. The claims are underlain by limestone, shale and minor chert breccia of Hadrynian to Paleozoic age. The only mineralization observed has been minor pyrite and rare galena as vug and fracture fillings with quartz in a chert breccia exposed in the creek.

Current Work and Results:

Work in 1974 consisted of geological mapping, prospecting and a geochemical soil survey. Soil samples were analyzed for zinc and lead. No significant anomalies were recognized.

DICK  
Harman Management Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia

Zinc  
106 C 7  
(64°28.5'N, 132°43'W)

Reference: Blusson (1974b).

Claims: DICK 1-48

Location and Access:

The property is on the west side of Harrison Creek, about seven miles north of the Bonnet Plume River and 114 miles northeast of Mayo. Access is by fixed wing aircraft from Mayo to Goz Lake, and then by helicopter 12 miles to the property.

History:

The property was staked in the summer of 1973, shortly after Barrier Reef's discovery on Goz Creek.

Description:

Most of the property is underlain by southwesterly dipping shale and siltstone of the Hadrynian to Lower Cambrian Sheepbed Formation. This unit is overlain conformably by massive dolomite, quartzite, and recessive shale and siltstone of Lower Cambrian age. The dolomite is coarse-crystalline to micro-crystalline in texture. Quartz is common as fracture and vug fillings. At one location sphalerite is associated with the quartz over a stratigraphic interval of 100 feet and along strike for about 500 feet. Lateral extent of the showing is unknown since it is covered by talus at both ends.

Current Work and Results:

The claims were explored by prospecting, geological mapping and geochemical soil sampling in 1974. The soil survey was of limited value because of abundant outcrop and talus and poor soil development on the property. The consultant recommended detailed mapping, trenching and bulk sampling in the area of the showing to determine overall grade and extent of the mineralization.

CVO, BPR, TRW  
Twin River Resources Limited  
(T.R.V. Minerals Corporation Limited)  
101 - 325 Howe Street  
Vancouver, British Columbia  
V6C 1Z7

106 C 6, 7  
(64°24'N, 132°57'W)

Reference: Blusson (1974b).

Claims: CVO 41-56; BPR 1-12, 21-40; TRW 1-40

Location and Access:

The property straddles the Bonnet Plume River about six miles northwest of the mouth of Goz Creek, and is located about 105 miles northeast of Mayo. Access is by float plane from Mayo to a small lake locally known as Porter Puddle, and from there by helicopter six miles northwest to the property.

History:

The claims were staked during the rush which followed Barrier Reef's lead-zinc discovery on Goz Creek in 1973. Cypress Resources Limited also discovered lead-zinc mineral showings to the north of the CVO group.

Description:

The claims south of the Bonnet Plume River are underlain by brown shale with minor siltstone and conglomerate. These beds are of Upper Proterozoic age. North of the river, the shale sequence is overlain by Upper Proterozoic dolomite. Outcrop on the property is scarce.

Current Work and Results:

Work in 1974 consisted of geological mapping and geochemical soil sampling. Samples were analyzed for lead and zinc. No significant lead anomalies were found. A large zinc-anomalous area along the northeast boundary of the CVO group (north of the river) is thought to correlate with the underlying shale-dolomite contact.

The consultant recommended more detailed soil sampling, geological mapping and an electromagnetic survey on the CVO and BPR groups because of the zinc geochemical anomaly associated with the CVO group and the proximity of these claims to known mineral showings to the north.

CVO, BPR  
Kendal Mining and Exploration  
Company Limited  
P.O. Box 580  
Terrace, British Columbia

106 C 7  
(64°24'N, 132°55'W)

Reference: Blusson (1974b).

Claims: CVO 33-40; BPR 13-20

Location and Access:

The property is a block of contiguous claims that straddles the Bonnet Plume River five miles downstream from the mouth of Goz Creek. Access is by float plane from Mayo to a small lake locally known as Porter Puddle. The property can be reached by helicopter from Porter Puddle, a distance of five miles.

History:

The claims were staked late in the 1973 season, during the rush which followed Barrier Reef's lead-zinc discovery at Goz Creek.

Description:

South of the Bonnet Plume River, the property is underlain by a thick sequence of Precambrian shale with interbedded siltstone and conglomerate. In the southeastern corner of the property, the shale is in contact with a grey dolomite of Precambrian to Lower Cambrian age. North of the river, the property is underlain by Precambrian shale and dolomite. Much of the ground is covered by overburden.

Current Work and Results:

Reconnaissance geological mapping and soil geochemistry in 1974 failed to discover any occurrences of economic minerals or significant geochemical anomalies.

CVO  
Corval Resources Limited  
420 - 475 Howe Street  
Vancouver, British Columbia

Zinc  
106 C 6  
(64°27'N, 133°00'W)

Reference: Blusson (1974b).

Claims: CVO 1-16

Location and Access:

The property is located on the north side of the Bonnet Plume River, nine miles northwest of the mouth of Goz Creek. Access is by helicopter from Mayo 105 miles to the southwest.

History:

The claims were acquired by Corval in 1973 during the rush that followed Barrier Reef's lead-zinc discovery on Goz Creek. A preliminary prospecting program was carried out on the property late that year.

Description:

The CVO claims are underlain by Lower Paleozoic to Upper Proterozoic sediments which strike northwesterly and dip 50° to 65° to the northeast. Massive grey dolomite of the Ordovician and Silurian Mt. Kindle Formation outcrops along the north edge of the property. This is underlain by brown shale which is assigned to the Sheepbed Formation of Hadrynian age. Below the Sheepbed Formation is a thick dolomite formation, containing a porous section, varying in thickness from 150 to 300 feet and lying about 200 feet below the upper contact.

The porous dolomite horizon is the same one that hosts primary zinc-lead mineralization on the adjoining Cypress Resources property to the east. On the CVO property, however, it contains only secondary zinc oxides and carbonates (smithsonite and hydrozincite).

Current Work and Results:

The 1974 program consisted of detailed geological mapping at a scale of one inch to 400 feet. Company personnel recommended that the claim group be retained pending further evaluation and publication of exploration results on the adjoining properties.

MAG  
Menika Mining Limited  
2245 West 13th Avenue  
Vancouver, British Columbia

106 C 6  
(64°26'N, 133°05'W)

Reference: Blusson (1974b).

Claims: MAG 1-40

Location and Access:

The property straddles the Bonnet Plume River about 11 miles downstream from the mouth of Goz Creek. Access is by helicopter or float plane from Mayo.

History:

The claims were recorded on 12 March 1974.

Description:

The property is heavily covered in overburden. The claims are surrounded by Upper Proterozoic to Lower Cambrian rocks of medium- to thick-bedded, fine-grained dolomite to the south and east, brown shale, siltstone and conglomerate to the north, and slate, quartzite and carbonates to the east. The dolomite units host zinc minerals elsewhere in the area.

### Current Work and Results:

During 1974 a combined airborne magnetic and VLF-EM survey was carried out over the property.

The magnetic survey revealed no anomalies and verified that the property is underlain by sedimentary rocks, probably dolomite. The VLF-EM survey revealed five anomalies, three of which are probably a result of noise. The remaining two anomalies are considered by the consultant to be caused likely by sulphides or graphite.

H,J,K,L

Hibernian International Development  
Corporation Limited (70%)  
706 - 1111 West Hastings Street  
Vancouver, British Columbia  
and

Olympian International Resources Limited (30%)  
514 - 355 Burrard Street  
Vancouver, British Columbia

106 C 7

(64°27'N, 132°56'W)

Reference: Blusson (1974b).

Claims: H 1-16; J 1-16; K 1-16; L 1-16

### Location and Access:

The claims form a single block in the Bonnet Plume Range, five miles northwest of the confluence of Harrison Creek with the Bonnet Plume River. Access is by float plane from Mayo to Rackla Lake and from there by helicopter to the property.

### History:

The claims were staked in February 1974, to cover open ground adjacent to the Cypress Resources property.

### Description:

The area is underlain by thick sequences of carbonates and clastics ranging in age from Hadrynian to Paleozoic. The claims themselves are underlain by a sedimentary sequence of four mappable units striking northwesterly and dipping about 55° to the northeast. The northeast part of the property is underlain by shale, slate, limestone and quartzite of Hadrynian and Lower Cambrian age. These beds are thrust up to the southwest against carbonates and black shale of Silurian to Mississippian age. No zinc or lead mineralization has been observed in the dolomite or limestone units.

### Current Work and Results:

Work in 1974 consisted of preliminary geological mapping and geochemical soil and silt sampling. Poor soil development limited the value of the soil survey. A broad zinc soil anomaly was discovered in an area underlain by cherty dolomite.



Corn Creek

RAM  
Kendal Mining and Exploration  
Company Limited  
507 - 540 Burrard Street  
Vancouver, British Columbia

Zinc  
106 C 11  
(64°33'N, 133°15'W)

Reference: Blusson (1974a).

Claims: RAM 1-24

Location and Access:

The claims are located 19 miles northwest of the confluence of Goz Creek and the Bonnet Plume River, on a ridge between Corn Creek and the Bonnet Plume River. Mayo lies 102 miles to the southwest. Access to the property in 1974 was by helicopter from Mayo.

History:

The claims were recorded in March 1974, during the staking rush triggered by Barrier Reef's zinc-lead discovery on Goz Creek the previous year.

Description:

The property is underlain by a series of faulted and folded sedimentary rocks ranging in age from Hadrynian to Devonian. In ascending order these include brown shale, sandstone and conglomerate with interbedded, platy dolomite; [light grey, porous, fine-grained dolomite;] brown and black slate; and thick-bedded, dark grey dolomite, the light grey, porous dolomite unit is thought to correlate with the mineralized host rock on the Cypress Resources property, 14 miles to the southeast. On the Cypress property, sphalerite and smithsonite occur as massive lenses, as disseminations, or as veinlets in weakly silicified breccia zones in the dolomite.

Current Work and Results:

The 1974 field program consisted of geological prospecting, and limited soil and silt geochemistry. A small amount of sphalerite was found in porous dolomite float material in the northwestern part of the property. Two small zinc anomalies, both apparently unrelated to the mineralized float, were outlined by the geochemical survey.

A consultant recommended that additional geological mapping and prospecting be carried out in order to evaluate the zinc anomalies.

DJ	
Consolidated Standard Mines Limited (50%)	106 C 11
333 - 885 Dunsmuir Street	(64°36'N, 133°17'W)
Vancouver, British Columbia	
and	
Yukon Gold Placers Limited (50%)	
420 - 890 West Pender Street	
Vancouver, British Columbia	

Reference: Blusson (1974a; 1974b).

Claims: DJ 1-40

Location and Access:

The DJ claim block straddles Corn Creek about nine miles above its confluence with the Bonnet Plume River. Pinguicula Lake lies seven miles to the northwest, and Goz Lake is about 28 miles to the east. Mayo is 105 air miles to the southwest. Access is by float plane from Mayo to Goz or Pinguicula Lake, and from there by helicopter to the property.

History:

The claims were staked in February 1974, during the staking rush which followed the discovery of zinc-lead deposits in the Goz Creek area the previous summer.

Description:

The property is underlain by a sequence of Hadrynian to Devonian sediments that dip moderately to the northeast. From the base of the section these include interbedded shale and limestone; shaly, banded dolomite; massive, grey crystalline dolomite; well-bedded, light-grey dolomite; and thick-bedded limestone and dolomite.

Current Work and Results:

The 1974 program of geological mapping and prospecting failed to reveal any sulphide mineralization on the property. The banded dolomite unit and the massive crystalline dolomite unit above it are locally brecciated, fractured, and cut by carbonate veins. These units are considered to be potentially favorable host rocks for zinc mineralization.

A consultant recommended that additional prospecting be carried out in the north part of the property where the favourable rock units are better exposed. A geochemical soil survey was recommended for the remainder of the property, much of which is covered by overburden.

PING  
Bow River Resources Limited  
and  
Highhawk Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia  
V6C 1N5

Zinc, Lead, Silver  
106 C 11  
(64°38'N, 133°15'W)

Reference: Blusson (1974b).

Claims: PING 1-24

Location and Access:

The property is on the south side of Black Canyon Creek, five miles southeast of Pinguicula Lake and 107 miles northeast of Mayo. Access is by fixed wing aircraft from Mayo to Pinguicula Lake and from there to the property by helicopter.

History:

Following Barrier Reef's discovery of lead-zinc showings at Goz Creek in the summer of 1973, a major staking rush took place in the area from Goz Creek northwest to Corn Creek. The PING group was staked the following winter after reports of copper and lead-zinc mineral showings in the area.

Description:

The property is underlain mainly by a thick sequence of dolomite and limestone of Lower Hadrynian to Lower Cambrian age. These carbonates are overlain by younger black shale and carbonates which outcrop at the east end of the claim block.

The main carbonate section is divided into two mappable units that are separated by an angular unconformity. The lower unit consists of interbedded dolomite and limestone with minor quartzite and siltstone. The upper unit, in the south-central part of the claim group, consists of white to grey, fine- to medium-grained dolomite and banded dolomite with interbedded siltstone and conglomerate. Total stratigraphic thickness of this unit is about 1050 feet. The main showings occur within a 400-foot thick interval, the base of which is some 300 feet above the base of the unit.

The first showing consists of sphalerite and galena together with dolomite as matrix filling in a dolomite breccia. Limited bedrock exposure indicates the showing is 40 feet wide by 100 feet long, with a stratigraphic thickness of up to 40 feet.

The second showing lies some 150 feet stratigraphically above showing #1, and consists of massive sphalerite and disseminated galena in pods within a matrix of brecciated dolomite. Areal extent of the showing is uncertain because of sparse outcrop.

A third showing consists of boulders of massive sphalerite in an area of extensive overburden, and appears to be stratigraphically above the other two showings.

### Current Work and Results:

Preliminary prospecting, reconnaissance geochemistry and geological mapping in August 1974, were followed by more detailed soil geochemistry and geological mapping in the vicinity of the main showings. Broad lead and zinc geochemical anomalies were found to correlate in part with the main showings.

The consultant recommended additional geochemistry, as well as trenching and limited diamond drilling to determine extent and grade of the showings. A test I.P. survey was also recommended to determine the use of this method in outlining mineralized zones, since samples of the high grade material were found to be non-conductive.

PONG	
Bow River Resources Limited	106 C 10
and	(64°38.5'N, 132°55'W)
Highhawk Mines Limited	
335 - 885 Dunsmuir Street	
Vancouver, British Columbia	

Reference: Blusson (1974a).

Claims: PONG 1-40

### Location and Access:

The property is in the upper drainage area of Corn Creek, about 14 miles east of Pinguicula Lake and 115 miles northeast of Mayo. Access is by float plane from Mayo to Goz Lake or Pinguicula Lake, and from there by helicopter to the property.

### History:

The claims were staked early in 1974 to cover rocks similar to those which host the lead and zinc minerals in the Goz Creek area, 20 miles to the southeast.

### Description:

The claims are underlain by southeasterly dipping sedimentary rocks of the Selwyn Basin. At the base of the section are slate, shale and siltstone of the Hadrynian to Cambrian Sheepbed Formation. These are overlain unconformably by dolomite, shale, quartzite and siltstone of the Cambrian Backbone Ranges Formation. A dolomite unit overlying the unconformity, elsewhere considered a favorable host for lead and zinc mineralization appears to be barren.

### Current Work and Results:

Geological mapping and reconnaissance soil geochemistry were done on the claims in 1974. No mineral showings were discovered on the property. The geochemical survey did not reveal any significant lead or zinc anomalies.

NET  
Grandora Explorations Limited  
900 - 850 West Hastings Street  
Vancouver, British Columbia

Zinc, Lead  
106 C 11  
(64°38'N, 133°15'W)

Reference: Blusson (1974a; 1974b).

Claims: NET 1-32

Location and Access:

The property is located on Black Canyon Creek, a tributary of Corn Creek. Access is by float plane from Mayo to Pinguicula Lake, and then by helicopter the remaining six miles to the property.

History:

The claims were staked in February 1974, during the staking rush generated by Barrier Reef's discovery on Goz Creek the previous year.

Description:

The property is underlain by a sequence of Hadrynian to Lower Cambrian sediments. At the base of the section is a black to brown shale unit, with minor interbedded limestone, dolomite and quartzite. This is overlain by a grey to black limestone and dolomite unit. Galena occurs with calcite veinlets in both the upper carbonate unit and the quartzite and dolomite beds of the lower unit. Sphalerite and galena are disseminated in dolomite float rock.

Current Work and Results:

Work in 1974 consisted of geological mapping and a geochemical soil survey. The soil survey outlined two coincident lead-zinc anomalies, one of which is related to galena showings in the quartzite.

The consultant recommended additional soil sampling to delineate the geochemical anomalies. Trenching was recommended as a means of establishing the widths and grades of the showings in the quartzite.

STAR  
Yukon Revenue Mines Limited  
c/o Cominco Limited  
2200 - 200 Granville Square  
Vancouver, British Columbia

Lead, Zinc  
106 C 10  
(64°40.5'N, 132°58.5'W)

Reference: Blusson (1974b).

Claims: STAR 1, 2

Location and Access:

The property is located about 12 miles east of Pinguicula Lake and 115 miles northeast of Mayo. Access is by fixed wing aircraft from Mayo to Pinguicula Lake and then by helicopter to the property.



### History:

The claims were recorded in September 1973.

### Description:

The property is underlain by medium-to thick-bedded fine-grained dolomite of Hadrynian age.

### Current Work and Results:

Coast Copper Company Limited, a subsidiary of Cominco, carried out a program of geological mapping and soil geochemistry in 1974. One wireline hole was drilled to a depth of 315 feet on the STAR 2 claim. Small amounts of galena and sphalerite were found on the property.

WX	Lead, Zinc
Cominco Limited	106 C 11
2200 - 200 Granville Square	(64°39'N, 133°08'W)
Vancouver 2, British Columbia	

Reference: Blusson (1974b).

Claims: WX 1-24

### Location and Access:

The WX claim group is located slightly north of Corn Creek, about ten miles east-southeast of Pinguicula Lake. Access is by float plane from Mayo to Pinguicula Lake and from there by helicopter to the property.

### History:

The claims were staked by the company during January and February 1974.

### Description:

The area is underlain by rocks of three separate lithologic units that are separated by two disconformities. The oldest rocks, which rarely outcrop, belong to the Rapitan Group of Hadrynian age. They consist of very fissile black argillite and shale, overlain by white to light brown quartzite with occasional fine laminations of orange limonite. The contact with the overlying Keele Formation is covered but is interpreted as a disconformity because of the overall change from clastic to carbonate lithology. The Hadrynian Keele Formation underlies most of the property. It consists of fine-to medium-crystalline dolomite, with some coarse-crystalline vuggy beds. The youngest rocks exposed on the property are coarse-grained lithic arenite, cemented by limonite and silica, and dark grey to black calcareous shale.

The bedding of all units dips about 30 degrees to the south-southeast. A small north-striking normal fault cuts across the property.

Small amounts of galena and sphalerite occur in vugs and small fractures in the Keele Formation dolomite. The mineralization appears to be concentrated near the fault zone.

### Current Work and Results:

Detailed geological mapping and a soil geochemical survey were carried out during the 1974 field season. Only minor showings were discovered. The geochemical survey outlined a number of coincident lead and zinc anomalies over the dolomitic units, but none were considered of significant interest.

DF  
Cominco Limited  
2200 - 200 Granville Square  
Vancouver, British Columbia

Lead, Zinc  
106 C 10  
(64°41'N, 132°59'W)

Reference: Blusson (1974b).

Claims: DF 1-81

### Location and Access:

The property is located beside Corn Creek about 12 miles east of Pinguicula Lake. Access is by way of fixed wing aircraft from Mayo to Pinguicula Lake and from there by helicopter to the property.

### History:

The DF claims were staked by Cominco in January 1974, to cover potentially favorable lithology for zinc mineralization similar to that discovered by Barrier Reef Resources at Goz Creek in the summer of 1973.

### Description:

The property is underlain by sediments of the Rapitan Group, the Keele Formation, and the Sheepbed Formation. These rocks range in age from Hadrynian to Lower Cambrian. The Rapitan Group is represented by four lithologic units totalling about 500 feet in exposed thickness. These are a quartzite boulder conglomerate, an orange weathering stromatolitic dolomite, a greenish-grey calcareous shale, and a black shale. The Rapitan Group is disconformably overlain by a sequence of dolomites, 1600 feet thick, belonging to the Keele Formation. These dolomites are separable into ten distinct lithologic units. Another disconformity separates the Keele Formation from the overlying Sheepbed Formation, which consists of a 400-foot thick section of shale, slate and limestone.

The sediments generally strike north with shallow to moderate dips to the east. Several normal and reverse faults are present on the property.

Galena and sphalerite were observed at a number of locations on the claims. The mineralization is sporadic and occurs in vugs or fracture fillings in some of the dolomite beds of the Keele Formation.

### Current Work and Results:

Field work during 1974 consisted of prospecting, geological mapping, and a geochemical soil survey over a part of the claim group. The mineralization observed was low grade. The geochemical survey outlined one coincident lead-zinc anomaly.

BAT  
Bow River Resources Limited  
and  
Highhawk Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia

106 C 10  
(64°41'N, 132°53'W)

Reference: Blusson (1974a; 1974b).

Claims: BAT 1-24

Location and Access:

The property is located in the upper part of the Corn Creek drainage area about 15 miles east of Pinguicula Lake. Access during 1974 was by float plane from Mayo to Goz Lake, 20 miles southeast of the claim group, and by helicopter from there to the property.

History:

The claims were staked in January 1974, during the staking rush which followed Barrier Reef's discovery at Goz Creek the previous summer.

Description:

The area is underlain by easterly dipping carbonates and clastics of Hadrynian to Cambrian age. Shale, siltstone and slate of the Sheepbed Formation are unconformably overlain by dolomite, shale, quartzite and siltstone of the Backbone Ranges Formation.

Current Work and Results:

No sulphide minerals were observed during geological mapping on the property. Grid soil sampling was done on the property and the samples were analyzed for lead and zinc. No significant anomalies were discovered, but several samples from the eastern part of the property were found to be weakly anomalous in zinc.

DEA  
Spectroair Explorations Limited  
c/o Cominco Limited  
2200 - 200 Granville Square  
Vancouver, British Columbia

Lead, Zinc  
106 C 11  
(64°43'N, 133°02'W)

Reference: Blusson (1974b).

Claims: DEA 1-72

Location and Access:

The property is on the upper part of Corn Creek, 11 miles east of Pinguicula Lake. Access is by fixed wing aircraft from Mayo to Pinguicula Lake and from there by helicopter to the property.

### History:

The DEA 1-70 claims were recorded on 25 September 1973. The DEA 71 and 72 claims were added a year later.

### Description:

The property is underlain by medium- to thick-bedded, fine-grained dolomite of Hadrynian age. Scattered occurrences of sphalerite and galena have been found in vugs and fractures within the dolomite.

### Current Work and Results:

Geological mapping and geochemical soil sampling were done on the claims in 1974. Some hand trenching was also done on the DEA 2 and 6 claims. The soil survey outlined two coincident lead-zinc anomalies.

RAIN	
Pine Lake Mining Company Limited	106 C 10
517 - 402 West Pender Street	(64°45'N, 132°50'W)
Vancouver, British Columbia	

Reference: Blusson (1974b).

Claims: RAIN 1-24

### Location and Access:

The property is located 117 miles northeast of Mayo at the head of Corn Creek, a tributary of the Bonnet Plume River. Pinguicula Lake lies 15 miles west of the claims. Access is by float plane from Mayo to Pinguicula Lake and thence by helicopter to the property.

### History:

The claims were staked in September 1973, during the staking rush which followed Barrier Reef's zinc-lead discovery on Goz Creek.

### Description:

The area is underlain by sediments of Hadrynian to Lower Cambrian age which dip gently to the east (Blusson, 1974b). The section is exposed on two ridge crests, one on the north and one on the south end of the claim group. The creek valley between the ridges is covered with overburden. A regional fault parallels the valley.

The oldest formation is the Hadrynian to Lower Cambrian Sheepbed Formation, which is a sequence of shale, limestone and quartzite. This is overlain by fine-grained dolomite, conglomerate, quartzite and siltstone of the Backbone Ranges Formation. No significant mineralization was observed on the property.

### Current Work and Results:

The 1974 program consisted of prospecting, geological mapping and detailed soil geochemistry. The geochemical survey outlined two interesting zinc anomalies, one of which coincides with a weak lead anomaly and could be considered as a future exploration target.

SUN  
Yukon Revenue Mines Limited  
c/o Cominco Limited  
2200 - 200 Granville Square  
Vancouver, British Columbia

Lead, Zinc, Silver  
106 C 14, 15  
(64°47'N, 133°00'W)

Reference: Blusson (1974b).

Claims: SUN 1-58

Location and Access:

The property is located at the headwaters of Corn Creek, about 13 miles northeast of Pinguicula Lake. Access is by fixed wing aircraft from Mayo to Pinguicula Lake and by helicopter from there to the property.

History:

The claims were recorded in September 1973.

Description:

The property is underlain by slate, siltstone, dolomite and quartzite of Hadrynian to Cambrian age. Minor amounts of sphalerite and galena occur in fractures in dolomite.

Current Work and Results:

A program of geological mapping and geochemical silt and soil sampling was carried out by Coast Copper Company Limited, a 95% owned subsidiary of Cominco.

MOUNT PROFEIT  
AMAX Exploration Incorporated  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Lead, Zinc  
106 C 14  
(64°49'N, 133°03'W)

Reference: Blusson (1974b).

Claims: DOC 1-150

Location and Access:

The property lies to the north of and straddles Mount Profeit, roughly 12 miles northeast of Pinguicula Lake. Access in 1974 was by float plane to Pinguicula Lake and thence by helicopter.

History:

The claims were staked in July 1974.

Description:

The DOC claims cover approximately five miles of strike length of an easterly dipping, vuggy dolomite unit of Hadrynian age (Blusson, 1974b). The unit is up to 800 feet thick but thins rapidly and shales-out to the north. Galena and sphalerite occur in vugs and local breccias in talus and



outcrop over a strike length of 6,000 feet in the shale-out region. Talus blocks of massive galena up to one foot across have been found at two localities along the zone.

Current Work and Results:

Work in 1974 consisted of preliminary mapping, prospecting and sampling.

DIVIDE  
AMAX Exploration Incorporated  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Zinc, Lead  
106 C 14  
(64°50'N, 133°08'W)

Reference: Blusson (1974b).

Claims: DAN 1-40

Location and Access:

The property lies 17 1/2 miles northeast of Pinguicula Lake. Normal access in 1974 was by float plane to Pinguicula Lake and then by helicopter.

History:

The claims were staked in July 1974.

Description:

The DAN claims cover an 800-foot thick, northeasterly dipping Hadrynian stromatolitic dolomite (Blusson, 1974b) containing widespread hydrozincite, sphalerite, galena and pyrite. The dolomite typically contains a ferroan dolomite vein and fracture stockwork. Galena and sphalerite occur along fractures, in veinlets and in local breccias. Veinlets commonly have associated quartz and minor bitumen. The best material was found in talus across ten to 20 feet and consisted of breccia with the fragments cemented by dolomite, quartz and sulphides.

Current Work and Results:

In 1974, AMAX conducted preliminary mapping, prospecting and sampling.

EG  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Zinc, Lead  
106 C 14  
(64°51'N, 133°08'W)

Reference: Blusson (1974b).

Claims: EG 30-37, 40-47

Location and Access:

The property is located in the Bonnet Plume Range, 14 miles northeast of Pinguicula Lake. Access is by fixed wing aircraft from Mayo to Pinguicula Lake and from there by helicopter to the property.

History:

The claims were recorded on 15 July 1974.

Description:

The property is underlain by Hadrynian dolomite and limestone with interbedded shale and sandstone. Pyrite and disseminated sphalerite occur as matrix in a brecciated dolomite unit.

Current Work and Results:

Geological mapping, soil geochemistry and rock chip geochemistry were done in 1974. Company geologists considered the main showing to be below economic grade, but several interesting geochemical anomalies were discovered.

Dolores Creek

DOLORES CREEK  
AMAX Exploration Incorporated  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Lead, Zinc  
106 C 13  
(64°49'N, 133°36'W)

Reference: Blusson (1974b).

Claims: DTG 1-144

Location and Access:

The claims are situated on the east side of the Bonnet Plume River, roughly two miles south of Dolores Creek. Access in 1974 was by fixed wing to Pinguicula Lake, nine miles to the southeast, and then by helicopter.

History:

The claims were staked in July 1974.

Description:

The property covers an east-west trending synclinal structure within Hadrynian sediments composed of a lower red-bed clastic suite and an upper stromatolitic dolomite unit (Blusson, 1974b). The fold structure is cut by numerous northwest and east-northeast trending faults. Significant amounts of lead-zinc sulphides have been observed in two areas within a platy, dark grey dolomite at the top of the red-bed sequence. The best showing consists of pyrite, galena, sphalerite and conspicuous hydrozincite in a well developed fracture and vein stockwork, along and across a northwest-trending, sheet-jointed and sheared zone roughly 1,500 feet wide. Here, the dolomite host is 500 feet thick. Scattered chalcopyrite occurs in fractures within the red-bed sequence.

Current Work and Results:

In 1974, AMAX conducted preliminary mapping, prospecting and sampling.

MAC, OTTO, MAD  
Menika Mining Limited  
2245 West 13th Avenue  
Vancouver, British Columbia

106 C 14  
(64°57'N, 133°23'W)

Reference: Blusson (1974a).

Claims: MAC 1-8; OTTO 1-8; MAD 1-8

Location and Access:

The property comprises a block of 24 contiguous claims in the Bonnet Plume Range on a tributary of Dolores Creek, 11 miles east of the south end of Fairchild Lake and 18 miles north of Pinguicula Lake. Access is by helicopter from Mayo, 120 miles to the southwest.

History:

The claims were staked in the spring of 1974.

Description:

The property is underlain by grey weathering, interbedded dark argillite and limestone with minor biotite calc-silicate hornfels of Helikian age. The sediments are cut by numerous small intrusive plugs, stocks and dykes.

Current Work and Results:

A combined airborne magnetometer and very low frequency electromagnetic (VLF-EM) survey was carried out over the property.

The magnetic survey did not reveal any significant anomalies. Results of the VLF-EM survey were clouded by noise, but two possible anomalies were thought by the consultant to be caused by sulphides, graphite or fault zones.

#### Noisy Creek

DTS  
Ogilvie Joint Venture  
c/o Archer, Cathro and Associates Limited  
685 Bentall Centre  
555 Burrard Street  
Vancouver, British Columbia

Zinc, Lead  
106 E 9  
(65°33'N, 134°18'W)

Reference: Norris et al (1963).

Claims: DTS 1-24

Location and Access:

The claims are situated on Noisy Creek, 14 miles north-northeast of Margaret Lake in the Knorr Range. Access is by fixed wing from Mayo to Margaret Lake and then by helicopter.

### History:

The DTS claims were staked in August 1974 by Ogilvie Joint Venture, a consortium consisting of Marietta Resources International Limited, Aquitaine Company of Canada Limited, Standard Oil Company of British Columbia and L.T. and Harris Clay.

### Description:

Low grade sphalerite, galena and chalcopyrite are reported to occur in tectonically-brecciated Lower Cambrian dolomite.

### Current Work and Results:

Reconnaissance mapping and soil sampling were carried out on the property in 1974.

### SNAKE RIVER AREA

AL	Copper, Lead, Zinc
Cyprus Anvil Mining Corporation	106 C 9, 10
804 - 1550 Alberni Street	(64°40'N, 132°32'W)
Vancouver, British Columbia	
V6G 1A5	

Reference: Blusson (1974a).

Claims: AL 1-240

### Location and Access:

The property is on the southwest side of the Snake River, about 16 miles north of Barrier Reef's Goz Creek property and 125 miles northeast of Mayo. Access is by helicopter from Mayo.

### History:

The claims were recorded on 16 April 1974, by Pelly River Staking Syndicate. Archer, Cathro and Associates Limited subsequently explored the property for Cyprus Anvil, who had acquired an option to purchase from the original owners.

### Description:

A regional fault which strikes northwest across the south part of the property brings a Hadrynian to Cambrian sequence of slate, quartzite, carbonate rocks and minor conglomerate on the northeast side into contact with Siluro-Devonian limestone and Devono-Mississippian shale on the southwest side. The oldest rocks exposed at the north end of the property are brown to black slate and minor quartzite of the Hadrynian Rapitan Group. This is in contact to the south with massive slate and minor quartzite and pebble conglomerate. The adjacent Lower Cambrian unit consists of quartzite with interbedded dolomite, limestone, slate and siltstone. This unit forms a northwesterly trending belt from one-half to two miles wide which dips to the northeast and may be the overturned limb of a fold whose crest has been removed by erosion. These rocks are in fault contact to the southwest with massive, fossiliferous white limestone of Siluro-Devonian age. The youngest rocks exposed along the southern edge of the property are fractured black

shale of Devono-Mississippian age.

Numerous small zinc mineral showings occur in the Siluro-Devonian limestone unit. These usually consist of zinc oxide, but in a few places minor galena and sphalerite occur as disseminations in calcite veinlets. Two small showings of bornite, chalcopryrite and malachite occur in a vuggy white quartz vein between dolomite and quartzite beds in the Lower Cambrian unit.

#### Current Work and Results:

A program of prospecting, reconnaissance geological mapping, and soil and stream silt geochemistry was carried out on the property. Geochemistry was quite effective in outlining all mineralization found by prospecting. No undiscovered showings were indicated. As a result, the consultant did not consider the known showings of potential economic interest and the option was dropped.

#### Backbone Ranges

CAB  
Arctic Red Joint Venture  
c/o Welcome North Mines Limited  
8 - 1161 Melville Street  
Vancouver, British Columbia  
V6E 2X7

Zinc, Lead  
106 C 16, 106 F 2  
(65°00'N, 132°35'W)

References: Norris et al (1963); Blusson (1974a); Dawson (1975).

Claims: CAB 1-320

#### Location and Access:

The CAB claims are situated in the Backbone Ranges of the Mackenzie Mountains, approximately 136 miles northeast of Mayo. Access in 1974 was by fixed wing from Mayo to one of the small lakes in the area, thence by helicopter.

#### History:

The CAB claims were staked in July 1974 during a program of reconnaissance exploration conducted by Arctic Red Joint Venture, a consortium consisting of Welcome North Mines Limited, Bethlehem Copper Corporation, International Mogul Mines Limited, Dupont of Canada Limited and Utah Mines Limited.

#### Description:

The claims are underlain by Lower Cambrian Sekwi dolomite which is overlain by Ordovician-Silurian carbonate rocks correlated with the Whittaker Formation. Pale sphalerite occurs in seven or eight deposits along a ten-mile strike length of a porous horizon in the Sekwi dolomite. The sphalerite occurs both as stratiform pore fillings and as remobilized breccia and fracture fillings. Occurrences of bedded sphalerite have also been found within the Ordovician-Silurian carbonates.

#### Current Work and Results:

Work on the CAB claims in 1974 included geological mapping, geochemical sampling and 1000 feet of diamond drilling in three holes.



AB  
Arctic Red Joint Venture  
c/o Welcome North Mines Limited  
8 - 1161 Melville Street  
Vancouver, British Columbia  
V6E 2X7

Zinc, Lead  
106 C 16, 106 F 1  
(65°00'N, 132°18'W)

References: Norris *et al* (1963); Blusson (1974a); Dawson (1975).

Claims: AB 1-6, 17-46, 49-54, 57-64, 67-70, 73-76, 79-270; a total of 250 claims in MacKenzie M.D.; and AB 203-242; a total of 40 claims in Mayo M.D.

Location and Access:

The property straddles the Yukon-Mackenzie District border, 144 miles northeast of Mayo. Access is by helicopter from Mayo. Guildersleeve Lake, a small lake five miles southwest of the property, is also suitable for fixed wing aircraft.

History:

The claims were staked during the 1974 field season by Welcome North Mines Limited on behalf of the Arctic Red Joint Venture.

Description:

The property is underlain by Lower Cambrian to Devonian carbonates and clastics. These include quartzite, siltstone and shale of the Backbone Ranges Formation; dolomite, limestone, shale and sandstone of the Sekwi Formation; black shale and calcareous siltstone of the Road River Formation; thick-bedded dolomite of the Mount Kindle Formation; and undivided dolomite and limestone of the Mount Kindle and Delorme Formations.

The main showing is in a dolomitic section of the Sekwi Formation, and is exposed at the surface as zinc-rich rubble and rare mineralized outcrop covering an area 100 feet wide and 800 feet long. Sphalerite, hydrozincite and smithsonite are present with minor amounts of galena, barite, pyrite and fluorite.

Current Work and Results:

The 1974 program consisted of prospecting, geological mapping, geochemical silt and soil surveys, and 866 feet of diamond drilling in three holes. Company geologists recommended more detailed surface exploration for the 1975 season.

WIND RIVER AREA

Illtyd Creek

MST	Lead, Zinc
Ogilvie Joint Venture	106 E 3
c/o Archer, Cathro and Associates Limited	(65°06'N, 135°04'W)
685 Two Bental Centre	
555 Burrard Street	
Vancouver, British Columbia	

References: Norris et al (1963); Dawson (1975).

Claims: MST 1-40

Location and Access:

The claims are situated 20 miles southwest of Margaret Lake. Access in 1974 was by fixed wing aircraft to Margaret Lake from Mayo, 128 miles to the south-southwest, and then by helicopter.

History:

The claims were staked in June 1974 during a program of regional geo-chemical reconnaissance and prospecting carried out by Ogilvie Joint Venture, a consortium composed of Marietta Resources International Limited, Aquitaine Company of Canada Limited, Standard Oil Company of British Columbia, and L.T. and Harris Clay.

Description:

The property is underlain by a grit unit of Lower Cambrian age that dips 20° to the south. Galena, pyrite and sphalerite occur impregnated in a coarse clastic, partly conglomeratic member over a strike length of several hundred feet.

Current Work and Results:

Work on the MST group in 1974 consisted of geological mapping and geo-chemical surveys.

FLUNK	Zinc, Lead
Ogilvie Joint Venture	106 E 2
c/o Archer, Cathro and Associates Limited	(65°06'N, 134°52'W)
685 Two Bental Centre	
555 Burrard Street	
Vancouver, British Columbia	

References: Norris et al (1963); Dawson (1975).

Claims: FLUNK 1-164

Location and Access:

The FLUNK claims are situated 18 miles southwest of Margaret Lake. Access in 1974 was by fixed wing aircraft to Kiwi Lake (eight miles south-southwest of Margaret Lake) and then by helicopter.

History:

The claims were staked in June and July 1974 during a program of regional geochemical reconnaissance and prospecting. The claims were staked for Ogilvie Joint Venture, a consortium composed of Marietta Resources International Limited, Standard Oil Company of British Columbia, Aquitaine Company of Canada Limited, and L.T. and Harris Clay.

Description:

The property is underlain mainly by a Lower Cambrian carbonate (Unit 3, Norris et al, 1963) which resembles the Sekwi dolomite but lacks the orthoquartzite marker horizon (Dawson, 1975). This unit is a buff, thick-bedded reefal dolomite that contains a mineralized zone consisting of disseminations and pore fillings of sparry dolomite, pale sphalerite, clear quartz, and coarse-grained galena and marcasite. The best zinc showings occur in breccia zones which may be controlled by zones of tension related to cross-cutting, northwest-trending faults.

Current Work and Results:

Work on the FLUNK claims in 1974 consisted of geological mapping and geochemical surveys.

IGOR	Copper
Ogilvie Joint Venture	106 E 2
c/o Archer, Cathro and Associates Limited	(65°03'N, 134°38'W)
685 Two Bentall Centre	
555 Burrard Street	
Vancouver, British Columbia	

Reference: Norris et al (1963).

Claims: IGOR 1-16

Location and Access:

The claims lie five miles northeast of the Wind River and 20 miles south of Margaret Lake in the Wernecke Mountains. Access is by fixed wing from Mayo to one of the lakes in the area and then by helicopter.

History:

The IGOR claims were staked in August 1974 by Ogilvie Joint Venture, a consortium composed of Marietta Resources International Limited, Aquitaine Company of Canada Limited, Standard Oil Company of British Columbia, and L.T. and Harris Clay.

Description:

The claims are underlain by a sequence of magnetite-hematite iron formation and altered volcanics in phyllite and quartzite of Proterozoic age. Chalcopyrite occurs in cross-trending, discontinuous zones of siderite-magnetite-barite.

Current Work and Results:

Geological mapping and preliminary soil and rock sampling were carried out in 1974.

Royal Creek

MAGIC  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Lead, Zinc, Flourite, Barite  
106 E 3  
(65°01'N, 135°05'W)

Reference: Norris et al (1963).

Claims: MAGIC 1-12

Location and Access:

The property is located on the east bank of Royal Creek, a north-flowing tributary of the Wind River, two miles west of Royal Mountain and 100 miles north-northeast of Mayo. Access is by helicopter from Mayo.

History:

The claims were staked in July 1974, to cover flourite-barite-galena-sphalerite showings discovered during a geological traverse.

Description:

The claims lie on the southwestern limb of a northwest-trending anticline. Massive, resistant limestone of Ordovician to Middle Devonian age is overlain by thin-bedded, recessive, argillaceous limestone of Middle Devonian age, and by black shale of the Upper Devonian Besa River Formation.

Showings of barite, flourite, galena, minor sphalerite and hydrozincite are restricted to a bed a few feet thick near the top of the argillaceous limestone unit.

Current Work and Results:

Work consisted of preliminary prospecting and geological mapping. The showings are apparently below economic grade.

OGILVIE MOUNTAINS AREA

Hart River

CUNG  
Noranda Exploration Company Limited  
P.O. Box 2380  
Vancouver, British Columbia  
V6B 3T5

Copper, Lead, Zinc  
116 H 7  
(65°21'30"N, 136°45'30"W)

Reference: Norris et al (1963).

Claims: CUNG 3-8

Location and Access:

The property is in the Hart River drainage area, 120 miles northeast of Dawson and 125 miles north-northwest of Mayo. Access is by helicopter.

### History:

The claims were staked during regional exploration in 1974.

### Description:

The area is underlain by Cambrian to Middle Devonian vuggy dolomite, shaly limestone and shale. Galena, sphalerite, chalcopryite, malachite, azurite and secondary zinc minerals occur in a north-trending vertical quartz vein which cuts the host carbonate rock.

### Current Work and Results:

The company did geological mapping and stream sediment geochemistry in 1974.

JUG

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

116 H 10  
(65°37'N, 136°58'W)

Reference: Norris et al (1963).

Claims: JUG 1-4

### Location and Access:

The claims are located on the northeastern flanks of the Ogilvie Mountains, about three miles northwest of the Hart River and 140 miles north of Mayo. Access to the property is by helicopter from the Dempster Highway, 32 miles to the northwest.

### History:

The property was staked in July 1974 to cover an iron-rich, acid seep with associated high lead and zinc content.

### Description:

The property is underlain by thin-bedded, fine-grained grey limestone which is overlain conformably by fractured black shale and slate. The flat-lying sediments are of probable Middle to Upper Devonian age.

Two rusty, acid seeps emerge from the shale just above the contact with the limestone. No sulphide minerals have been observed in either the limestone or the shale.

### Current Work and Results:

Work consisted of preliminary geological mapping, prospecting and geochemical sampling. Several of the samples are anomalous in lead and zinc.



Michelle Creek

ID  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Lead, Zinc  
116 A 13  
(64°58.5'N, 137°41.5'W)

Reference: Green (1972).

Claims: ID 1-8

Location and Access:

The property is located five miles north of Michelle Creek in the central Ogilvie Mountains, about 82 miles northeast of Dawson and 108 miles northwest of Mayo. Access is by helicopter from the Dempster Highway, 15 miles to the west.

History:

The claims were staked in June 1974 to cover the headwaters of a small stream which was found to be highly anomalous in lead and zinc.

Description:

The oldest rocks on the property are shale and siltstone of Proterozoic age. This unit is overlain unconformably by massive grey dolomite of Ordovician-Silurian age. Two gossan zones, about one-half mile apart, occur at the same stratigraphic level above the base of the dolomite unit. The first consists of large blocks of gossan float containing minor secondary zinc minerals. The second contains visible galena and secondary lead minerals.

Current Work and Results:

Preliminary prospecting, geological mapping and limited geochemical sampling were carried out on the claims in 1974. Additional soil sampling and hand trenching were recommended by the company geologist to determine the extent of the mineralized zone.

DAWSON MINING DISTRICT

FORTY MILE AREA

Clinton Creek

CLINTON CREEK MINE  
Cassiar Asbestos Corporation Limited  
85 Richmond Street West  
Toronto, Ontario  
M5H 2G1

Asbestos  
116 C 7  
(64°27'N, 140°42'W)

References: Green and Godwin (1964, pp.19-21); Green (1965, pp.25-27; 1966, pp.25-26); Christian (1966); Findlay (1967, pp.27-29; 1969a, pp.31-32; 1969b, pp.18-20); Criag and Laporte (1972, pp.30-31); Green (1972, pp.143-144); Sinclair and Gilbert (1975, pp.29-30).

Claims: 147 claims

Location and Access:

The Clinton Creek Mine is 50 miles northwest of Dawson, five miles up Clinton Creek, a left bank tributary to the Fortymile River. Access is via a 26-mile, all-weather road which leaves the Sixtymile-Boundary Road at Mile 33. Asbestos fibre is shipped by truck to Whitehorse, a distance of 390 miles, and then by rail to the port of Skagway.

History:

The property was staked in the spring of 1957 and explored in 1957 and 1958 by 9,300 feet of trenching and two adits totalling 4,100 feet on the 1,200- and 1,400-foot levels on Porcupine Hill. A smaller deposit on Snowshoe Hill, to the east of Porcupine Hill, was explored by 5,700 feet of trenching and 1,200 feet of underground development on the 1,180-foot level.

From 1963 to 1967, when production began, the deposits were explored by extensive sampling and diamond drilling. Starting in 1967, production has been mainly from the Porcupine deposit.

Description:

The Clinton Creek asbestos deposits are in serpentinized ultrabasic rocks (Unit E, Green, 1972) that occur in metamorphic rocks of the Nasina Series (Unit A, op.cit.) which consist of phyllite, argillite, limestone and quartzite. The serpentinite mass which contains the Porcupine deposit is an irregular lens 4,500 feet long and up to 1,000 feet wide dipping moderately north and plunging to the west. A north-south section through the deposit and enclosing rocks consists of from top to bottom: argillite, hanging wall contact dipping 50° north, marginal quartz-carbonate alteration zone averaging 60 to 70 feet but locally up to 400 feet thick, barren serpentine of irregular thickness, fibre-bearing serpentine, footwall contact and footwall quartzite. The asbestos fibre occurs almost entirely as cross-fibre veins, one quarter inch or less wide.

### Current Work and Results:

In 1974, a total of 1,388,248 tons of ore were milled at a daily rate of 4,596 tons. Production was mainly from the Porcupine ore body and to a lesser degree, from the Snowshoe ore body.

Diamond drilling on the Bear Creek zone in 1974 indicated this zone to be uneconomic and 7,500,000 tons previously reported as possible ore reserves were removed from the reserves. Reserves at Clinton Creek are now reported as 6,524,725 tons probable and an additional 461,000 possible. Operating summary for 1972, 1973 and 1974 is as follows:

	1974	1973	1972
Tons milled	1,388,248	1,247,154	1,267,178
Rate (tons/day)	4,596	4,838	4,400
Grade (% recovery)	4.37	5.64	5.66
Reserves (probable)	6,524,725	7,861,123	9,250,000
(possible)	461,000	8,792,000	9,500,000

### OGILVIE MOUNTAINS AREA

#### Tombstone Mountain

KEM	Silver, Lead, Zinc
Klondike Explorations Limited	116 B 7
P.O. Box 4244	(64°22'30"N, 138°42'W)
Whitehorse, Yukon Territory	

References: Cockfield (1920); Tempelman-Kluit (1970); Green (1972).

Claims: KEM 1-8, 39, 40

### Location and Access:

The property is about nine miles west of the Dempster Highway, in the canyon of Spotted Fawn Gulch, just above its confluence with Little Twelve Mile River. Access is by helicopter from Dawson, 31 miles to the southwest.

### History:

The original Spotted Fawn property has been known for some time. Galena showings were first described by Cockfield in 1920 and intermittent work has been done on the property since that time. The KEM claims were staked in 1968 and 1969.

### Description:

The area is underlain by the Keno Hill Quartzite, a resistant, thick-bedded to massive, fine-grained orthoquartzite with minor interbedded slate (Unit 18, Green, 1972). Sills of diorite and gabbro (Unit 20, op.cit.) intrude the quartzite. The section is repeated several times by a series of northeasterly trending, southeasterly dipping thrust faults. The KEM claims lie on one of the thrust plates, called the Spotted Fawn Thrust.

The main showing consists of two veins, containing galena with pyrite and calcite, in a lens or sill of greenstone.

Current Work and Results:

In 1974 the company did geochemical soil sampling and hand trenching. Four shallow holes totalling 120 feet were drilled with a Winkie drill. The drill holes intersected several small galena- and sphalerite-bearing veins.

O'Brien Creek

AUSSIE  
Silver Standard Mines Limited  
904 - 1199 West Hastings Street  
Vancouver, British Columbia  
V6E 3T5

Lead, Zinc, Silver, Antimony  
116 A 3  
(64°14'N, 137°58'W)

Reference: Green (1972).

Claims: AUSSIE 1-56

Location and Access:

The AUSSIE claims are located 50 miles east of Dawson, on a tributary of O'Brien Creek. Helicopter transportation is available from Dawson.

History:

The area was staked as the Rimrock claims in 1966 by Conwest, and partially restaked as the RN claims by Hart River Mines in 1969. The AUSSIE claims were staked by Silver Standard Mines Limited in late August 1974, following a regional geochemistry program.

Description:

Small stocks ranging in composition from syenite to diorite intrude Cambrian or older sediments (Unit 3, Green, 1972). Galena, sphalerite, and jamesonite occur in narrow veins in several locations. Much of the country rock appears to be fine pyroclastics, which have been locally metamorphosed.

Current Work and Results:

Stream and soil geochemistry, along with reconnaissance prospecting, were carried out on the property in 1974.

Mount Harper

OZ  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Zinc, Lead  
116 B 12, 13  
(64°44'N, 139°44'W)

Reference: Green (1972).

Claims: OZ 1-81

Location and Access:

The property is located six miles northeast of Mount Harper in the southern Ogilvie Mountains. Access is by helicopter from Dawson, 47 miles to the south.

History:

The claims were staked during the 1974 regional exploration program.

Description:

The property is underlain by a sequence of clastic sediments of Proterozoic age, consisting of orange- and buff-weathering dolomite, shale, grey-weathering dolomite, and lesser amounts of quartzite, limestone and conglomerate (Unit 2, Green, 1972). Sphalerite and galena occur in veins and breccia zones in dolomite and shale.

Current Work and Results:

In 1974 geological mapping and geochemical soil surveys were carried out on the central claims in the group. Company geologists consider that more work is required to evaluate the property.

Chapman Lake

KIWI  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Zinc, Lead  
116 B 10, 15  
(64°45'N, 138°47'W)

Reference: Green (1972).

Claims: KIWI 1-80

Location and Access:

The property is located in the southern Ogilvie Mountains, 15 miles southwest of Chapman Lake (Mile 74) on the Dempster Highway, and 52 air miles north-northeast of Dawson. Access is by helicopter from Dawson or from one of the helicopter pads on the Dempster Highway.

History:

The claims were staked during a regional exploration program in 1974.

Description:

The area is underlain by a sequence of Proterozoic clastic sediments including buff- to orange-weathering dolomite, dark shale, grey-weathering dolomite, and minor quartzite, limestone and conglomerate (Unit 2, Green, 1972). Sphalerite and galena occur in veins and breccia zones in dolomite.

Current Work and Results:

Results of a geochemical soil survey were inconclusive. More sampling and detailed mapping are required to evaluate the claims.



DIDLO  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Lead, Zinc  
116 B 16, 116 G 1  
(65°00'N, 138°18'W)

Reference: Green (1972).

Claims: DIDLO 1-12

Location and Access:

The property is located in the central Ogilvie Mountains, three miles west of the Dempster Highway and 70 miles northeast of Dawson. Access is by helicopter or by foot from the Dempster Highway.

History:

The claims were staked in June 1974, over a galena-sphalerite showing which was discovered earlier that year as a result of a regional stream sediment survey. The area had previously been staked is the SILIYA claims in 1963.

Description:

Property geology consists of strongly folded, flinty shale of Proterozoic age, overlain unconformably by relatively flat-lying, massive grey dolomite of Ordovician-Silurian age. Galena, sphalerite and pyrite occur in a strongly silicified breccia zone in the upper part of the shale unit at the unconformity. Coarsely crystalline siderite is present as an alteration mineral.

Current Work and Results:

Prospecting and geological mapping were done on the claims in 1974. The showing appears to be below economic grade.

#### Michelle Creek

HOT  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Lead, Zinc  
116 A 13  
(64°59'N, 137°46'W)

Reference: Green (1972).

Claims: HOT 1-14, 17-30, 33-34

Location and Access:

The claims are located about five miles north of Michelle Creek in the central Ogilvie Mountains, 80 miles northeast of Dawson and 110 miles north-west of Mayo. Access is by helicopter from the Dempster Highway, 13.5 miles to the west.

History:

The HOT claims were staked in June 1974 to cover lead and zinc geochemical silt anomalies discovered earlier in the season.

### Description:

Oldest rocks exposed on the property are dolomitic siltstone with minor interbedded dolomite, sandstone and argillite of Proterozoic age. This unit is overlain unconformably by thick-bedded, sparry dolomite of Ordovician-Silurian age. Galena, sphalerite and minor pyrite occur in a gossan zone in the dolomite unit about 500 feet stratigraphically above the unconformity.

### Current Work and Results:

Preliminary geological mapping, prospecting and hand trenching were done on the property in 1974. Assay results from float rock indicated lead and zinc content as high as 37.5 per cent and 16.2 per cent respectively. Hand trenching in one gossanous area uncovered a bed or vein of massive galena-sphalerite-pyrite, which grades downward into a two-foot thick zone of disseminated galena and sphalerite in dolomite. The zone pinches out to the southeast but appears to be open to the west. A company geologist recommended a detailed geochemical soil survey and additional hand trenching on the property.

### Ogilvie River

BEAR  
Inexco Mining Company  
1900 - 1100 Milam Building  
Houston, Texas  
77002

Lead, Zinc  
116 G 3  
(65°11'N, 139°10'W)

Reference: Norris et al (1963).

Claims: BEAR 1-42

### Location and Access:

The property is in the central Ogilvie Mountains, 32 miles northwest of Mile 74 on the Dempster Highway and 78 miles north of Dawson. Access is by helicopter from Dawson, or from one of the helicopter pads along the Dempster Highway.

### History:

The BEAR claims were staked by Inexco Oil Company in the spring of 1973 to cover an area of suspected lead mineralization. During the following summer, detailed prospecting, geological mapping, and geochemical silt and soil surveys were carried out. Galena-bearing float rock on a talus-covered hillside was traced upslope to a small outcrop of siliceous dolomite containing finely disseminated galena. A detailed soil survey outlined a coincident lead-zinc anomaly in the vicinity of the showing.

A consultant recommended an extension of the soil grid to determine the extent of the anomaly, as well as trenching to evaluate the mineralized outcrop.

Description:

The property is underlain by westerly dipping, Cambrian-Ordovician carbonates which have been overthrust onto Ordovician-Silurian graptolitic shales in the southeast corner of the claim group. Galena occurs as disseminations in one small outcrop of siliceous dolomite and in float rock down-slope from the outcrop.

Current Work and Results:

Assessment work done in 1973 was sufficient to keep the claims in good standing for several years and no work was done on the property in 1974.

BILBO  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Barite, Lead  
116 G 7  
(65°16'N, 138°41'W)

Reference: Norris et al (1963).

Claims: BILBO 1-47

Location and Access:

The property is in the central Ogilvie Mountains, 11 miles west of the Dempster Highway and 85 air miles north-northeast of Dawson. Access is by helicopter from Dawson or the Dempster Highway.

History:

The claims were staked during a regional exploration program in 1974.

Description:

The area is underlain by lower Paleozoic limestone, dolomite and shale. Some barite and galena occur in a breccia zone at the crest of a fold in Ordovician dolomite.

Current Work and Results:

Work in 1974 consisted of geological mapping and geochemical soil sampling. The soil survey did not reveal any significant anomalies.

RALPH  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver 1, British Columbia

Zinc, Lead  
116 G 7  
(65°18.5'N, 138°40'W)

Reference: Norris et al (1963).

Claims: RALPH 1-4

Location and Access:

The claims are on the southeast side of the Ogilvie River in the central Ogilvie Mountains, about 12 miles west of the Dempster Highway and 90 miles north of Dawson. Access is by helicopter from the Dempster Highway.

History:

The RALPH claims were staked in August 1974 to cover a lead and zinc geochemical silt anomaly discovered earlier in the season.

Description:

The property is underlain by block-fracturing, massive, siliceous dolomite of Lower to Middle Ordovician age. To the south, these rocks are overlain conformably by thin-bedded chert, graptolitic shale and shaly limestone which have been correlated with the Ordovician-Silurian Road River Formation.

Mineralization on the property consists of secondary iron, zinc and lead minerals in a gossan zone.

Current Work and Results:

Work consisted of detailed prospecting, geochemistry and hand trenching of the showing. Results of soil geochemistry and analyses of trench samples were not encouraging.

#### Fishing Branch River

MINK  
Inexco Mining Company  
1900 - 1100 Milam Building  
Houston, Texas  
77002

Copper, Lead, Zinc  
116 K 1  
(66°09'N, 140°11'W)

Reference: Norris et al (1963).

Claims: MINK 1-80

Location and Access:

The property is near the headwaters of the Fishing Branch River in the northern Ogilvie Mountains, 23 miles east of the Alaska border and 34 miles southwest of Bear Cave Mountain. Access is by helicopter from Dawson, 145 miles to the south. Several helicopter pads are also located along the Dempster Highway which passes to within about 70 miles of the property.

### History:

The company first did regional exploration in the area in 1969. Subsequently, more detailed examinations revealed the presence of copper and zinc minerals in float material along the crest of the Mink Anticline. This led to the staking of the MINK group of claims in the spring of 1973. Work the following summer consisted of geological mapping, prospecting, soil and stream silt geochemistry, ground magnetometer and electromagnetic surveys, and some trenching.

Detailed geochemical surveys outlined several copper and zinc anomalies along the axis of the anticline. The magnetometer and electromagnetic surveys were carried out over some of the more interesting anomalous areas, but results were inconclusive. Similarly, trenching operations along a selected zone did not reach bedrock and results were inconclusive.

A consultant recommended bulldozer trenching and diamond drilling on selected targets within the areas of geochemical anomalies.

### Description:

The claim group is located over the south end of an anticline which plunges gently to the southeast. The oldest rocks exposed along the axis of the structure are cherty and bioclastic limestone of the Permian-Pennsylvanian Ettrian Formation. These are overlain successively by clastics and carbonates of the Permian Jungle Creek Formation and the Upper Triassic Shublik Formation, recessive shale of the Lower Cretaceous Husky Formation and sandstone of the Lower Cretaceous Martin Creek and Goodenough Formations.

The axial core of Permian-Pennsylvanian carbonates exposed as a ridge at the centre of the structure is faulted and sheared along its eastern flank.

One siliceous outcrop at the south end of the ridge contains malachite, azurite, and some disseminated chalcopyrite. Some of the float rock in the vicinity contains blebs of sphalerite with chalcopyrite cores, as well as secondary malachite and smithsonite as vug linings. Secondary copper minerals are visible in float material at several other locations along the length of the carbonate ridge.

### Current Work and Results:

Assessment work done in 1973 was sufficient to keep the claims in good standing for several years and no work was done on the property in 1974.



RAT, LYNX

Brascan Resources Limited  
502 - 1155 West Pender Street  
Vancouver, British Columbia  
V6E 2P4

116 K 1  
(66°08'N, 140°10'W)

References: Norris et al (1963); Lenz (1972).

Claims: RAT 1-18; LYNX 1-12

Location and Access:

The claims form an L-shaped block adjacent to the south and west sides of Inexco Mining Company's MINK claims. The property is 16 miles northwest of Mount Burgess and 145 miles north of Dawson. Access during 1974 was by helicopter from the Brascan base camp, 20 miles to the northeast.

History:

The claims were recorded on 29 April 1974.

Description:

The property lies along the nose and western limb of a southerly plunging anticline in the core of which are exposed Devonian or younger carbonates. These are overlain and surrounded by younger shale, quartzite and siltstone. Small amounts of malachite, azurite and disseminated chalcopyrite occur in a resistant knob of silicified carbonate in the core of the structure on the MINK claims.

Current Work and Results:

Prospecting and geological mapping were done in 1974, as well as a geochemical soil survey on parts of the RAT and LYNX groups. No showings other than those already known on the MINK claims were found. Several soil samples from the RAT claims were found to be anomalous in zinc.

GIRLY et al

Brascan Resources Limited  
502 - 1155 West Pender Street  
Vancouver, British Columbia  
V6E 2P4

Zinc  
116 J 5  
(66°22'N, 139°43'W)

Claims: ROX 1-70; MOD 1-36; BON 1-41; LUCKY 1-60; GIRLY 1-89; PEACH 1-8; JIM 1-8; GUN 1-8; MOKO 1-8; JULIE 1-17 Fr.; Total of 345 full and fractional claims [also ERIN 1-16 and DAV 1-8 claims held under option from C.L. Smith]

Location and Access:

The claim groups are located about 15 miles southeast of Bear Cave Mountain, 160 air miles north of Dawson. A winter airstrip, the Mallard, lies about 40 miles south of the property. An all-weather airstrip is located at Mile 166 on the Dempster Highway, about 70 miles east of the claim groups. Summer access is by fixed wing aircraft from Dawson or by vehicle along the Dempster Highway to the Mile 166 airstrip, and thence by helicopter to the property. After freeze-up, access to the property is also provided by a winter road for wheeled and tracked vehicles from the Dempster Highway.

### History:

The claims (except the ERIN and DAV blocks) were staked by Brascan in September 1973 and the summer of 1974, after the discovery by the company of strata-bound zinc mineralization in the area. The ERIN and DAV claims were staked for C. Smith in August 1973, and subsequently optioned to Brascan.

### Description:

The property is underlain by a sequence of Silurian-Devonian carbonates. At the top of the section is a resistant, crinoidal limestone of Devonian age. This is underlain successively by recessive shaly limestone; resistant, grey, aphanitic limestone; and undifferentiated crystalline dolomite. These are all assigned to the Devonian. At the base of the section is a series of cherty dolomites considered Silurian in age. The section is repeated in some places by several northerly trending thrust faults which cross the property. Outcrop is scarce, usually being confined to the tops of ridges and the steep sides of creek valleys.

Several showings of sphalerite, galena, chalcopyrite, smithsonite and pyrite have been observed in the undifferentiated dolomite and overlying limestone. Four distinct modes of mineralization have been identified: breccia, fracture-filling, vug-filling and replacement.

### Current Work and Results:

The 1974 field program consisted of prospecting, geological mapping, geochemical surveys, blasting and trenching, and claim surveys on all of the claims. Areas in which the more important showings occur are being considered by the company for additional exploratory work in order to determine the extent and grade of the mineralization.

GOOD, BAD, SIN, UGLY  
Brascan Resources Limited  
502 - 1155 West Pender Street  
Vancouver, British Columbia  
V6E 2P4

116 J 5  
(66°18'N, 139°47'W)

Reference: Norris et al (1963); Lenz (1972).

Claims: GOOD 1-12; BAD 1-12; SIN 1-12; UGLY 13-36

### Location and Access:

The property is in the northern Ogilvie Mountains, about 20 miles south-west of Bear Cave Mountain and 155 miles north of Dawson. During 1974 access was by helicopter from the Brascan base camp on the GIRLY et al property about five miles to the northeast.

### History:

The area was studied as part of a photogeological compilation done by Geophoto Services Limited in 1963. A geochemical survey done by International Nuclear Corporation in 1972 showed stream sediment anomalies of up to 1,500 ppm zinc on the property. The GOOD, BAD, SIN and UGLY claims were recorded by Brascan on 18 September 1973.

Description:

The property is underlain by folded and faulted sediments of Ordovician to Devonian age. The oldest rocks exposed are sucrose, vuggy-weathering dolomite of Ordovician age. This is overlain by thin-bedded, buff-weathering, silty dolomite and resistant, light grey limestone of Silurian age. At the top of the section are recessive, argillaceous limestone of the Lower Devonian Gossage Formation and resistant, crinoidal limestone of the Middle Devonian Ogilvie Formation. About a mile east of the property Cretaceous sandstone and shale are exposed in the axis of a syncline.

Current Work and Results:

Prospecting, geological mapping, and stream sediment sampling were done on the property in 1974. No mineral showings were found. Stream silt samples were found to be consistently lower in copper, lead and zinc content than the samples collected by International Nuclear Corporation in 1969. One coincident copper-zinc anomaly was found on the property. A zinc anomaly was also found in a stream which drains the northern part of the property.

Miner River

CHOPPER, YUM	Zinc, Lead
Brascan Resources Limited	116 J 3
502 - 1155 West Pender Street	(66°05'N, 139°24'W)
Vancouver, British Columbia	
V6E 2P4	

References: Norris et al (1963); Lenz (1972).

Claims: CHOPPER 1-8; YUM 1-8

Location and Access:

The claims form one contiguous block seven miles northeast of Mount Burgess in the northern Ogilvie Mountains, 139 miles north of Dawson. Access during 1974 was by helicopter from Brascan's base camp on the GIRLY et al property, about 20 miles to the north-northwest.

History:

The claims were staked by Brascan geologists after follow-up prospecting of an anomalous stream sediment sample led to the discovery of mineralized float.

Description:

The property is located on a westerly dipping thrust block of Ordovician to Devonian carbonates. The oldest rocks exposed are light grey to white, medium- to coarse-crystalline dolomite. These are overlain by thin-bedded, dark grey, fossiliferous fine-crystalline dolomite. Near its upper contact, the latter hosts lead and zinc sulphides at both the north end and the south end of the claim block. This unit is overlain by a light grey, fine-grained limestone, which is in turn overlain by thin-bedded limestone and dolomite of the Gossage Formation and crinoidal limestone of the Ogilvie Formation.

The small showing at the south end of the property consists of galena and sphalerite in dark grey dolomite float rock. At the north end of the property,

sphalerite occurs in both talus and outcrop as disseminations, in vein breccia and as fracture fillings.

#### Current Work and Results:

In 1974, the claims were prospected and mapped in detail. Three small trenches were blasted in the vicinity of the northern showing, but only minor sphalerite was found in fractures.

TOAD	Zinc, Lead
Brascan Resources Limited	116 J 3
502 - 1155 West Pender Street	(66°04'N, 139°28'W)
Vancouver, British Columbia	
V6E 2P4	

References: Norris et al (1963); Lenz (1972).

Claims: TOAD 1-8

#### Location and Access:

The property is located five miles east-northeast of Mount Burgess in the Fishing Branch River area, 137 miles due north of Dawson. During 1974 the claims were reached by helicopter from Brascan's base camp about 20 miles to the north on the GIRLY et al claims, described elsewhere in this report.

#### History:

The claims were staked in June 1974 to cover a geochemical stream sediment anomaly discovered by a Brascan prospecting crew during a regional reconnaissance program.

#### Description:

The property is underlain by a relatively flat-lying sequence of dolomite of Cambrian to Ordovician age. Outcrop is generally limited to creek beds and ridges. A mineralized stratigraphic section 25 feet thick has been followed for 135 feet along strike. It dies out toward the east and disappears under talus to the west. The showing consists of red-brown sphalerite and galena along fractures and in veins, and less commonly as vug fillings.

#### Current Work and Results:

Detailed geological mapping and prospecting resulted in the discovery of the showing. Chip samples from two ten-foot trenches blasted in the mineralized zone gave assay results as high as three per cent lead, 12 per cent zinc and 0.03 ounces per ton silver.

Forty-six soil and stream sediment samples were taken along a bench in the creek valley and around the flanks of the mountain on either side. A geochemical anomaly across the creek from the showing is thought by the company geologists to indicate a possible extension of the zone. Diamond drilling was recommended to test the showing and the geochemical anomaly.

BRANDY  
Brascan Resources Limited  
502 - 1155 West Pender Street  
Vancouver, British Columbia  
V6E 2P4

Zinc, Lead  
116 J 3  
(66°04'N, 139°22'W)

References: Norris et al (1963); Lenz (1972).

Claims: BRANDY 1-8

Location and Access:

The property straddles a small, easterly flowing tributary of the Miner River about eight miles east of Mount Burgess and 137 miles north of Dawson. During 1974 access was by helicopter from the Brascan base camp on the GIRLY et al property about 20 miles to the north-northwest.

History:

The BRANDY claims were recorded on 11 July 1974, during the company's regional exploration program.

Description:

The property is underlain by strongly sheared dolomite of Cambrian to Ordovician age. Outcrop is scarce. A regional, northwesterly trending thrust fault cuts across the property. Two small showings on the north side of the creek carry sheared sphalerite and galena in fractures in weathered outcrop. Sphalerite and galena also occur in float on the south side of the creek.

Current Work and Results:

Geological mapping and prospecting were done on the claims, and a geochemical soil survey was done in the vicinity of the showings. Three small trenches were blasted in the larger showing on the north side of the creek in an unsuccessful attempt to reach unweathered sulphide. Assay results of chip samples were very low. Several small coincident lead-zinc anomalies were found in the vicinity of the showings.

#### KEELE RANGE AREA

LORD  
Brascan Resources Limited  
502 - 1155 West Pender Street  
Vancouver, British Columbia  
V6E 2P4

Zinc  
116 O 3  
(67°07'N, 139°16'W)

References: Norris et al (1963); Lenz (1972).

Claims: LORD 1-36

Location and Access:

The property is located in the Keele Range, 34 miles south-southeast of Old Crow and 210 miles north of Dawson. Access during 1974 was by helicopter from the Brascan base camp, 50 miles to the south.



History:

The claims were recorded on 29 April 1974.

Description:

The property is underlain by a sequence of argillaceous limestone and crinoidal limestone of Lower and Middle Devonian age. Both limestone units contain abundant fractures filled with calcite.

Mineralization was observed in one small outcrop about 15 feet long and eight feet wide, and in scattered occurrences of float rock. The outcrop consists of a silicified limestone breccia with sphalerite occurring as disseminations and pods in calcite veinlets and masses. Sphalerite also occurs as disseminations in the breccia and as linings in quartz and calcite filled vugs. Traces of malachite and chalcopyrite have also been found. Numerous other outcrops nearby are barren of economic minerals.

Current Work and Results:

Outcrop geology was mapped in detail. A geochemical soil survey was carried out in the vicinity of the mineralized outcrop and float material. Several zinc geochemical anomalies were found to be on strike with the sphalerite showing. Two trenches were blasted near the mineralized float in an unsuccessful attempt to reach bedrock.

RICHARDSON MOUNTAINS AREA

Doll Creek

ONCE	Lead, Zinc
Noranda Exploration Company Limited	106 E 14
P.O. Box 2380	(65°55'N, 135°21'W)
Vancouver, British Columbia	
V6E 3T5	

Reference: Norris et al (1963).

Claims: ONCE 1-57

Location and Access:

The property is in the southern Richardson Mountains, five miles north of the junction of the Peel and Wind Rivers. Access is by helicopter from Dawson, 174 miles to the southwest, or from Mayo, 160 miles to the south.

History:

The claims were staked during regional exploration in 1974.

Description:

The area is underlain by relatively flat-lying carbonates, clastics and evaporites of Cambrian age. Galena and sphalerite occur together with associated secondary minerals in fault zones and as fracture fillings in Lower Cambrian dolomite. The host rocks are overlain unconformably by Middle Cambrian clastics.

Current Work and Results:

The company did geological mapping, stream sediment geochemistry and soil geochemistry in 1974.

TUKU, ALI  
AMAX Explorations Incorporated  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Lead, Zinc, Copper  
106 E 14  
(65°59'N, 135°24'W)

Reference: Norris et al (1963).

Claims: TUKU 1-16; ALI 1-10

Location and Access:

The property is in the southern Richardson Mountains, nine miles north of the mouth of Doll Creek and 164 miles north of Mayo. Access is by fixed wing aircraft from Mayo to any of several nearby lakes and then by helicopter to the property.

History:

The claims were staked during the 1974 field season.

Description:

The property covers part of a window of Lower Cambrian micritic limestone. The limestone is in fault contact with younger argillite and limestone and is overlain by siltstone. The fault zone contains disseminated, fracture-controlled and massive galena, sphalerite, chalcopyrite and pyrite with associated barite and siderite. Scattered occurrences of galena, barite and hydrozincite also occur along fractures and as disseminations in the micritic limestone unit.

Current Work and Results:

Work in 1974 consisted of preliminary mapping, prospecting and sampling.

DOLL, LODD  
Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

Lead, Zinc  
116 I 1  
(66°05'N, 136°03'W)

Reference: Norris et al (1963).

Claims: DOLL 1-24; LODD 1-16

Location and Access:

The claims are situated in two separate blocks three-quarters of a mile apart, roughly 132 miles north of Mayo. Access is by fixed wing aircraft from Mayo or Dawson to Caribou Lake or a small lake on Doll Creek, then by helicopter.

History:

The DOLL claims were staked in July 1974; the LODD claims were staked in August 1974, following a regional stream geochemical program.

Description:

The property is underlain by limestone and shale of Ordovician and Silurian age. Sphalerite and galena have been observed within a fault-related tectonic breccia within the limestone and shale.

Current Work and Results:

Work in 1974 consisted mainly of preliminary stream and soil geochemical sampling.

ENOC  
Noranda Exploration Company Limited  
P.O. Box 2380  
Vancouver, British Columbia  
V6B 3T5

Lead, Zinc  
106 L 4  
(66°07'N, 135°48'W)

Reference: Norris et al (1963).

Claims: ENOC 1-23

Location and Access:

The property is located in the southern Richardson Mountains near the headwaters of Doll Creek, 173 miles due north of Mayo and 176 miles northeast of Dawson. Access is by helicopter.

History:

The claims were staked during regional exploration in 1974.

Description:

The area is underlain by carbonates, clastics and evaporites of Cambrian age. Galena, sphalerite, marcasite and associated alteration minerals occur as fault fillings, fracture fillings and minor disseminations in Lower Cambrian dolomite. The dolomite host rock is overlain unconformably by Middle Cambrian clastics on the northeast border of the claim group.

Current Work and Results:

Geological mapping and geochemical stream sediment and soil surveys were carried out on the property in 1974.

ML  
Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

Lead, Zinc  
105 L 4  
(66°08'N, 135°50'W)

Reference: Norris et al (1963).

Claims: ML 1-118

Location and Access:

The property lies roughly 175 miles north of Mayo, two miles west of Doll Creek. Access in 1974 was by fixed wing aircraft from Mayo or Dawson to Caribou Lake or a small lake on Doll Creek, and thence by helicopter.

History:

The ML claims were staked in June 1974 following a regional stream geo-chemical program.

Description:

The ML claims are underlain by Cambrian limestone and shale in which minor disseminated galena and rare sphalerite have been reported.

Current Work and Results:

Work in 1974 consisted of geological mapping and geochemical silt and soil sampling. Stream sediments in the area were found to be highly anomalous in lead and zinc.

RAS, TUS  
AMAX Exploration Incorporated  
601 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L6

Lead, Zinc  
106 L 4  
(66°09'N, 135°53'W)

Reference: Norris et al (1963).

Claims: RAS 1-12; TUS 1-12

Location and Access:

The property is located in the southern Richardson Mountains, three and one-half miles west of the headwaters of Doll Creek and 175 miles north of Mayo. Access is by fixed wing aircraft from Mayo to one of several nearby lakes and then by helicopter to the property.

History:

The claims were staked during the 1974 field season.

Description:

The property covers part of a window of Lower Cambrian, bedded, micritic limestone overlain by sandstone, siltstone and shale and in fault contact with younger, dark grey limestone. Sparse galena, sphalerite and hydrozincite

occur along fractures and in vugs in a limestone section about 100 - 200 feet thick, lying some 100 - 200 feet below the overlying clastics.

Current Work and Results:

Work in 1974 consisted of geological mapping, prospecting and sampling.

TWICE  
Noranda Exploration Company Limited  
P.O. Box 2380  
Vancouver, British Columbia  
V6B 3T5

Lead, Zinc  
106 L 4  
(66°10'N, 135°53'W)

Reference: Norris et al (1963).

Claims: TWICE 1-14, 15 Fr.

Location and Access:

The property is in the southern Richardson Mountains, 178 miles northeast of Dawson and 176 miles north of Mayo. Access is by helicopter.

History:

The claims were staked during the 1974 exploration program.

Description:

The area is underlain by Cambrian carbonates, clastics and evaporites. Marcasite, galena, sphalerite and associated alteration minerals occur in the uppermost beds of a Lower Cambrian dolomite sequence. These beds dip gently to the west and are overlain unconformably by Middle Cambrian clastics.

Current Work and Results:

In 1974 the company did geological mapping and soil geochemistry on the property.

CENO  
Noranda Exploration Company Limited  
P.O. Box 2380  
Vancouver, British Columbia  
V6B 3T5

Lead, Zinc  
106 L 4  
(66°13'N, 135°52'W)

Reference: Norris et al (1963).

Claims: CENO 1-24

Location and Access:

The property is located in the southern Richardson Mountains, 179 miles northeast of Dawson and 176 miles north of Mayo. Access is by helicopter.

History:

The claims were staked during the 1974 exploration program.



Description:

The area is underlain by Cambrian carbonates, clastics, and evaporites. Galena, sphalerite, marcasite and associated alteration minerals occur as fracture fillings and disseminations in thick-bedded Lower Cambrian dolomite which dips gently to the west.

Current Work and Results:

Work in 1974 consisted of geological mapping and stream sediment and soil geochemistry.

Vittrekwa Creek

VIT  
Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

Zinc, Lead  
116 I 16, 106 L 13  
(66°45'N, 135°57'W)

Reference: Norris et al (1963).

Claims: VIT 1-140

Location and Access:

The property lies 218 miles north of Mayo, roughly eight miles southwest of Vittrekwa Creek. Access in 1974 was by fixed wing from either Dawson or Mayo to Caribou Lake or a small lake on Doll Creek, and then by helicopter.

History:

The claims were staked in July 1974 following a regional stream geochemical program.

Description:

The property is underlain by limestone and shale of Ordovician and Silurian age. Minor galena and sphalerite occur in breccia zones in limestone and shale.

Current Work and Results:

Work in 1974 consisted mainly of preliminary stream and soil geochemical sampling.

WHITEHORSE MINING DISTRICT

DAWSON RANGE AREA

Ladue River

DEA  
Great Bear Mining Limited  
599 Taylor Street  
Vancouver, British Columbia

Zinc, Lead, Gold, Silver  
115 N 2  
(63°04'N, 140°54'W)

Reference: Tempelman-Kluit (1974b).

Claims: DEA 1-12

Location and Access:

The property is located three miles east of the Alaska border and 46 miles north of Beaver Creek. Access is by helicopter from Beaver Creek.

History:

The claims were staked in May 1972, by A. Harman and R.S. Adamson. Some hand trenching was done on the property that year. In 1973, the property was inspected by R. Cathro, C.K. Ikona and R. Darney.

Description:

The claims lie on the eastern flank of a belt of Triassic to Cretaceous hornblende granodiorite and monzonite which has intruded late Proterozoic rocks of the Pelly Gneiss and Klondike Schist series, as well as early Paleozoic biotite granodiorite. Moderately foliated hornblende granodiorite under the western claims is in contact with biotite-quartz schist to the east. Outcrop is very scarce because of the unglaciated terrain.

Hand trenching of two areas of float rock in 1972 revealed narrow quartz veins containing varying amounts of galena, sphalerite, arsenopyrite and pyrite. Assay results from float samples show that gold and silver are associated with the sulphides.

Current Work and Results:

Geochemical and geophysical surveys were carried out on the property in 1974. The geochemical survey consisted of detailed soil sampling between the two trenches over a total area of 2,000 feet by 2,500 feet. The samples were analyzed for lead, zinc, silver and arsenic. Coincident lead-arsenic anomalies were found to be associated with both trenches, and a coincident silver-zinc anomaly is also associated with the eastern trench.

A coincident lead-zinc-silver-arsenic anomaly also occurs in the vicinity of the western trench.

Coffee Creek

CC

Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

115 J 11  
(62°41'N, 139°11'W)

Reference: Tempelman-Kluit (1974b).

Claims: CC 1-36

Location and Access:

The claims are situated roughly ten miles west-southwest of the Casino copper-molybdenum property. Access in 1974 was by helicopter.

History:

The claims were staked in 1974 during the course of a regional stream geochemical and mapping program.

Description:

The area is underlain by Triassic hornblende granodiorite of the Klotassin Batholith (Tempelman-Kluit, 1974b) which is present on the claims only as float.

Current Work and Results:

Geological mapping and soil sampling outlined a small copper-molybdenum soil anomaly near the centre of the claim group.

Doyle Creek

DOYLE

Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

Copper, Molybdenum  
115 J 11  
(62°39'N, 139°13'W)

Reference: Tempelman-Kluit (1974b).

Claims: DOYLE 1-40

Location and Access:

The claims are situated in the Dawson Range roughly 12 miles west-southwest of the Casino copper-molybdenum deposit. Access to the property in 1974 was by helicopter.

History:

The claims were staked in 1974 during a regional stream geochemical and mapping program.

Description:

The area is underlain primarily by Triassic hornblende granodiorite of the Klotassin Batholith (Tempelman-Kluit, 1974b). Minor copper and molybdenum sulphides are reported to be associated with a locally altered stock of quartz monzonite that intrudes the granodiorite.

Current Work and Results:

Geological mapping and soil sampling is reported to have outlined a copper-molybdenum anomaly.

Colorado Creek

PATT  
Amoco Canada Petroleum Company Limited  
2010 - 65 Queen Street West  
Toronto, Ontario  
M5H 2M5

Copper, Molybdenum  
115 J 10  
(62°32'N, 138°38'W)

Reference: Tempelman-Kluit (1974b).

Claims: PATT 1-48

Location and Access:

The claims are situated approximately 15 miles south-southeast of the Casino copper-molybdenum deposit. In 1974, access was by helicopter.

History:

The claims were staked in 1974 during a regional stream geochemical and mapping program.

Description:

The area is underlain by Triassic hornblende granodiorite which intrudes Proterozoic and/or Paleozoic Nasina Quartzite occurring to the northeast (Tempelman Kluit, 1974b). Minor copper and molybdenum sulphides are reported to be associated with a small body of alaskite intruding granodiorite and monzonite.

Current Work and Results:

Geological mapping and soil sampling outlined a copper-molybdenum anomaly on the property.

Selwyn River

FUN  
Canadian Superior Exploration Limited  
2201 - 1177 West Hastings Street  
Vancouver, British Columbia

Copper  
115 I 13  
(62°47'N, 137°57'W)

Reference: Tempelman-Kluit (1974a).

Claims: FUN 1-40

Location and Access:

The property lies on the south side of the Yukon River, roughly 72 miles northwest of Carmacks. Access in 1974 was by helicopter from Minto, 36 miles to the east-southeast.

History:

The property was originally staked as the TUF claims by United Keno Hill Mines Limited in the early 1970's but these claims lapsed and were re-staked by Canadian Superior Exploration Limited in April 1974 as the FUN group.

Description:

The claims cover an area underlain entirely by hornblende-biotite-granodiorite of the Klotassin Batholith of Triassic age or earlier (Tempelman-Kluit, 1974a). The granodiorite is weakly to strongly foliated due to the alignment of mafic minerals, particularly biotite, and zones of biotite-quartz-feldspar schist and gneiss have been identified on the property. Copper showings on the property consist of weakly disseminated malachite and chalcopyrite within the schist and gneiss zones.

Current Work and Results:

In 1974, Canadian Superior Exploration carried out a program of geological mapping, soil sampling and an I.P. survey on the property. No anomalous areas warranting further work were outlined.

Hayes Creek

NADA  
D.C. Syndicate  
1720 - 1055 West Hastings Street  
Vancouver, British Columbia  
V6E 2E9

Copper, Gold  
115 I 12  
(62°38'N, 138°00'W)

Reference: Bostock (1944); Tempelman-Kluit (1974a).

Claims: NADA 1-24

Location and Access:

The claims lie on and west of Hayes Creek above the mouth of Klines Gulch, roughly 65 miles northwest of Carmacks. Access in 1974 was by helicopter from Minto, 35 miles to the east.



### History:

Placer gold was discovered in Klines Gulch in 1898 and placer mining has been carried out intermittently in the area since then. The first lode staking took place in 1899 on quartz veins found around Klines Gulch and an 80-foot adit was driven in the early 1900's which is reported to have intersected an eight-foot wide quartz vein that assayed up to 0.4 ounces per ton gold (Bostock, 1944). In 1965, the area was restaked for copper-molybdenum potential as the HAYES claims by Coranex Limited following a regional geochemical exploration program. It was restaked again in 1969 as the DP claims by Dawson Range Joint Venture who subsequently carried out a program of geological mapping, soil sampling and bulldozer trenching in 1969 and 1970. By 1974, some of the DP claims had lapsed and were restaked by D.C. Syndicate as the NADA claims.

### Description:

The property is underlain primarily by metamorphic rocks of the Yukon Group which are intruded to the southwest by Triassic granodiorite of the Klotassin Batholith (Tempelman-Kluit, 1974a). Trace amounts of copper and molybdenum are associated with disseminated pyrite and pyrrhotite in a small quartz monzonite stock that intrudes Yukon Group rocks. Traces of copper and molybdenum also occur with disseminated pyrite in the bleached, quartz-veined contact zone within the Yukon Group rocks.

### Current Work and Results:

In 1974, D.C. Syndicate carried out geological mapping and soil sampling on the NADA claims.

#### Dark Creek

DEF  
United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon;

Copper, Silver, Gold  
115 I 11  
(62°38'N, 137°15'W)

Falconbridge Nickel Mines Limited  
P.O. Box 40, Commerce Court West  
Toronto Ontario  
M5L 1B4  
and  
Canadian Superior Exploration Limited  
2201 - 1177 Hastings Street  
Vancouver, British Columbia

References: Tempelman-Kluit (1974a,b); Sinclair and Gilbert (1975, pp.39-41).

Claims: DEF 1-87, 1379 Fr.

### Location and Access:

The DEF claim group is situated 145 miles north-northwest of Whitehorse and 45 miles northwest of the town of Carmacks. It is five miles north of Dark Creek and 12 miles west of the Minto airstrip from which it can be reached by helicopter.

### History:

The claims were staked in 1971 to cover outcrops with malachite staining. Soil geochemistry, E.M., I.P., magnetic and geological surveys conducted in 1971 outlined northwest-trending anomalous zones which were investigated by extensive bulldozer trenching in 1972. Detailed soil sampling, E.M., I.P., and magnetic surveys were carried out in 1973 along with 25,432 feet of diamond drilling in 41 holes.

### Description:

The DEF property is underlain primarily by hornblende biotite granodiorite of the Klotassin Batholith which is probably Triassic or older (Tempeelman-Kluit, 1974a,b). The granodiorite ranges from granite to quartz diorite in composition although the more granitic types predominate. It is commonly porphyritic with pink orthoclase phenocrysts ranging up to one inch long and sometimes greater. Mafic content varies from a few per cent up to 20 per cent and consists of biotite and hornblende in varying proportions. Sphene is an abundant accessory and is commonly visible in hand specimens.

The granodiorite commonly exhibits foliation, due to the tendency of the mafic minerals, particularly biotite, to be aligned along certain planes. The strike of the foliation is variable but generally averages N 25° to 30° W. The degree of foliation varies from weak, and in many places virtually non-existent, to very strong foliation in which there is strong alignment of the mafics and gneissic, compositional banding. There are also sections of fine-grained, highly siliceous material with a very low mafic content. Magnetite and garnet occur locally in varying amounts. The zones of strong foliation vary from a few feet up to hundreds of feet wide and often grade into non-foliated or poorly foliated granodiorite, particularly in the hanging wall of the mineralized zones, although the footwall contacts are sharp in many places. Laterally, the zones are discontinuous and appear to interfinger with non-foliated to poorly-foliated granodiorite.

The granodiorite is cut by pegmatite and aplite dykes and by at least two types of volcanic dykes. The pegmatite and aplite dykes, commonly not more than a few inches but occasionally several feet wide, strike west to northwest. The volcanic dykes consist of fine-grained, dark basalt or andesite, ranging from a few inches to a few feet across, and light grey, hornblende-biotite-feldspar porphyry dykes ranging from tens of feet up to hundreds of feet across. Both types of volcanic dykes trend northeast to northerly.

The copper occurrences are distributed mainly, although not exclusively, in subparallel, strongly foliated zones commonly with a high proportion of biotite but locally of a highly siliceous nature. Chalcopyrite and bornite are the primary copper minerals and occur as small veinlets and as disseminated grains and irregular blebs interstitial to and replacing gangue minerals, particularly biotite. Pyrite is not abundant except on the lateral fringes of the main ore zone where up to several per cent is present locally. Magnetite is locally abundant in the foliated zones and is often associated with copper mineralization, although in varying amounts. Various types of alteration including potassic, argillic and sericitic alteration have been observed adjacent to the east-west fault. Minor sericitic alteration is associated with the mineralized zone.

### Current Work and Results:

Work in 1974 consisted of detailed geological mapping, I.P. and magnetic surveys and 27,029 feet of diamond drilling in 52 holes, most of which was fill-in drilling on the main ore zone. Total drilling to date is 52,461 feet in 93 holes.

The main ore body is a relatively flat-lying zone 50 to 200 feet thick and 200 to 400 feet below surface. It is roughly elliptical in shape, measuring 1,200 feet along the north-south axis and 800 feet east-west. To the north, the deposit is truncated by a fault striking N 80° W and dipping 60° to the north. Movement on the fault has not been determined nor has the extension of the ore body been found north of this fault. To the south, the mineralized zone extends onto the MINTO claim group, owned jointly by American Smelting and Refining Company and Silver Standard Mines Limited, where it gradually pinches out. To the east, the mineralized zone inter-fingers with massive and porphyritic granodiorite; to the west, the zone approaches a quartzite in composition and gradually pinches out.

Drilling to date has outlined roughly 3.2 million tons of ore grading 1.8 per cent copper on the DEF property. Gold and silver range from 0.1 to 0.7 ounces per ton for silver and 0.005 to 0.02 ounces per ton for gold, the higher gold and silver contents corresponding quite closely with high copper contents.

A slope stability study of the ore body was carried out during the summer and feasibility studies on the ore body are currently underway.

Exploratory drilling done in 1974 on other areas of the property was unsuccessful.

MINTO	Copper, Silver, Gold
American Smelting and Refining Company	115 I 11
504 - 535 Thurlow Street	(62°37'N, 137°15'W)
Vancouver, British Columbia	
and	
Silver Standard Mines Limited	
904 - 1199 West Hastings Street	
Vancouver, British Columbia	

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, pp. 41-42).

Claims: MINTO 1-73, 75-94, 94-97 Fr.

### Location and Access:

The MINTO claims lie immediately south of the DEF property, roughly 12 miles west of the Minto airstrip. Access in 1974 was by helicopter from the Minto airstrip, by fixed wing aircraft from Whitehorse to an airstrip on the MINTO property, or by winter road from Carmacks.

### History:

The claims were staked in 1971 by Silver Standard Mines Limited to cover a reconnaissance soil geochemical anomaly. Subsequent property work in 1971 included seven diamond-drill holes totalling 3,800 feet. In 1972 Silver Standard drilled 12 holes totalling 6,000 feet and carried out extensive bull-dozer trenching. Asarco took over the exploration program in 1973 and

completed 62 holes totalling over 25,000 feet. Results of this drilling indicated 3.5 million tons of 2.12 per cent copper in the main zone on the MINTO property.

#### Description:

The MINTO property is underlain primarily by hornblende biotite granodiorite of the Klotassin Batholith of Triassic age or older (Tempelman-Kluit, 1974a, b). The granodiorite varies from granite to diorite locally but averages granodiorite in composition. It is commonly porphyritic with pink orthoclase phenocrysts ranging up to one inch long and occasionally larger. Mafic content varies from a few per cent up to 20 per cent and consists of biotite and hornblende in varying proportions. Spene is an abundant accessory and is commonly visible in hand specimens.

The granodiorite commonly exhibits a foliation due to alignment of the mafic minerals, particularly biotite. The strike of the foliation is variable but averages N 25° to 30° W. The degree of foliation varies from weak, and in many places virtually non-existent, to very strong foliation showing gneissic, compositional banding. The strongly foliated zones generally have the same composition as the granodiorite except for the mineralized zones that are reportedly more granitic in composition due to the addition of quartz and biotite.

The granodiorite is cut by pegmatite and aplite dykes, ranging from a few inches up to several feet across, that strike west to northwest. Dark, basalt or andesite dykes up to five feet across trend northwest to northerly. The latter are probably related to the Eocene Carmacks volcanics.

Locally on the MINTO property the granodiorite is overlain by a distinct hematite conglomerate up to 200 feet thick and consisting almost entirely of subrounded pebbles and boulders of the granodiorite with a hematitic matrix. The contact with the underlying granodiorite varies from sharp to gradational suggesting that the conglomerate may have been formed mainly by in situ weathering of the granodiorite. Evidently the conglomerate predates the Eocene Carmacks volcanics which overlie it locally.

On the southern part of the MINTO claims the granodiorite is capped by Eocene basalt and andesite flows, flow-breccias and tuffs of the Carmacks Group. At the base of the Carmacks Group is a section up to 500 feet thick or more of poorly indurated sandstone, shale and conglomerate interbedded with lapilli and ash tuffs. Exposure of these rocks is extremely poor and information on them is mainly from drilling.

The copper occurrences are distributed mainly, although not exclusively, in subparallel, strongly foliated zones commonly with a high proportion of biotite. Chalcopyrite and bornite are the primary ore minerals and occur as small veinlets and as disseminated grains and irregular blebs interstitial to and replacing gangue minerals, particularly biotite. Pyrite is not abundant except on the fringes of the main ore zone where up to several per cent is present locally. Magnetite is commonly associated with copper mineralization although in varying amounts. Various types of alteration including potassic, argillic and sericitic alteration have been observed in the mineralized zones.

Drilling in 1971 and 1972 outlined four separate zones of copper mineralization on the central part of the property. The main ore zone, outlined by the 1973 drilling, is on the northern part of the property and extends onto the DEF property. This deposit is a relatively flat-lying zone 50 to 200



feet thick. It is roughly elliptical in shape and measures 1,200 feet along the north-south axis and 800 feet east-west. The mineralized zone generally tends to pinch out and interfinger with massive and porphyritic granodiorite except to the north where it is truncated by a N 80° W striking, 60° N-dipping fault. On the MINTO property the main zone is covered by an average of 180 feet of overburden and waste rock. In at least one area the ore subcrops below unconsolidated overburden and has been partially oxidized to malachite, azurite, chalcocite and native copper.

#### Current Work and Results:

Work in 1974 consisted of a magnetometer survey over a portion of the claims and 36,838 feet of diamond drilling in 58 holes for a total to date of over 91,000 feet of drilling in 139 holes. Some 8,539 feet of the 1974 drilling was for fill-in drilling on the ore body and the remainder was for exploration of adjacent areas.

Results of the 1973 and 1974 drilling on the main ore body indicated 5.2 million tons of 1.8 per cent copper on the MINTO property. In addition to copper, the ore contains 0.1 to 0.7 ounces per ton silver and 0.005 to 0.02 ounces per ton gold. Feasibility studies on the main ore body are currently underway.

Some encouraging results were also obtained from the exploratory drilling. Hole 108, drilled 2,000 feet southeast of the main ore body and adjacent to Zone 52 outlined from previous work, cut 220 feet of 1.03 per cent copper from 656-876 feet. Hole 125, drilled 3,000 feet east of the south end of the main ore body, ran 1.36 per cent copper over 63 feet from 578-641 feet.

BEN, PAL, KAP, NEB	Copper
Dawson Range Joint Venture	115 I 11
c/o Archer, Cathro and Associates Limited	(62°37'N, 137°12'W)
P.O. Box 4127	
Whitehorse, Yukon Territory	

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, pp. 42-43).

Claims: BEN, PAL, KAP, NEB; total of 120 claims and fractions

#### Location and Access:

The claims adjoin the eastern boundary of the MINTO claim group, roughly two miles east of the Minto copper discovery. In 1974 the property was serviced by helicopter from the Minto airstrip, ten miles to the east. Equipment and supplies were also brought in by fixed wing aircraft to the airstrip on the MINTO claims and then hauled by tractor to the property itself.

#### History:

The PAL claims were staked in September 1971 and subsequently acquired by Dawson Range Joint Venture, a consortium comprised of Strauss Exploration Incorporated, BX Development Limited, Marietta Resources International Limited and Molybdenum Corporation of America. The BEN and KAP claims were added in October 1971 and the NEB fractions in September 1973. In 1972, geological mapping and soil sampling outlined a copper anomaly in an area of visible malachite staining. In 1973, five bulldozer trenches cut across the anomalous zone exposed two foliated zones carrying minor copper mineralization, mainly malachite and azurite. One of the trenches is reported to



have cut 20 feet which graded 0.32 per cent copper. Magnetic and electromagnetic surveys were also carried out in 1973.

#### Description:

Outcrops on the property, covering only a small percentage of the total area, consist mainly of hornblende biotite granodiorite, of Triassic age or older (Tempelman-Kluit, 1974a), intruded by pegmatite and aplite dykes and fine-grained, andesite dykes. The granodiorite is weakly foliated over most of the property except toward the western margin of the property where there is strong foliation locally. Foliation is variable but generally trends northwest and dips steeply to the west to nearly vertically. Malachite and azurite occur locally along fractures and as disseminated grains in strongly foliated zones near the western boundary of the property.

In the southwest corner of the property the granodiorite is overlain by Eocene volcanics of the Carmacks Group consisting of basalt and andesite flows, flow-breccias and tuffs (Tempelman-Kluit, 1974a).

#### Current Work and Results:

Four holes totalling 2,250 feet were drilled on the property in 1974. Hole B-1 was drilled roughly 1,000 feet east of the foliated zones exposed by the trenches to test an EM-16 anomaly. The hole encountered mainly porphyritic granodiorite, weakly foliated locally and with no reported mineralization. Holes B-2, 3 and 4 were drilled below the previously exposed foliated zones and intersected a number of mineralized zones containing minor amounts of disseminated chalcopyrite, bornite, magnetite and pyrite as well as malachite and azurite.

COMANCHE  
Pinnacle Mines Limited  
615 - 543 Granville Street  
Vancouver, British Columbia  
and  
Yukon Gold Placers Limited  
420 - 890 West Pender Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62°37'N, 137°19'W)

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, p. 47).

Claims: COMANCHE 1-52

#### Location and Access:

The claims are adjacent to the west boundary of the MINTO group, roughly 16 miles west of the Minto airstrip. In 1974 equipment and supplies were brought in by fixed wing aircraft to the airstrip on the MINTO claims and then hauled by tractor to the property or by helicopter from the Minto airstrip.

#### History:

The claims were staked in the fall of 1971 and five bulldozer trenches were cut late in 1972. Geological mapping, geochemical surveys and geophysical surveys carried out in 1973 outlined a number of copper soil anomalies and a number of electromagnetic and magnetic anomalies coincident with the copper soil anomalies.

Description:

The claims are underlain mainly by medium- to coarse-grained hornblende biotite granodiorite of Triassic age or older (Tempelman-Kluit, 1974a) cut by aplite and pegmatite dykes. The granodiorite is weakly to moderately foliated in a northwesterly trend. To the south the granodiorite is overlain by andesitic volcanics of the Eocene Carmacks Group and to the west it is overlain by basalt of the Pleistocene Selkirk Series (Tempelman-Kluit, 1974a).

There are no significant mineral occurrences known on the property with the exception of minor malachite staining in granodiorite exposed in one of the bulldozer trenches cut in 1972.

Current Work and Results:

In 1974, five holes were drilled for a total of 2,793 feet. Most of the footage was in hornblende biotite granodiorite and diorite, poorly foliated and cut by dykes of andesite and hornblende biotite feldspar porphyry. Hole C-1 cut 0.48 per cent copper from 358.2 to 360.0 feet in a gneissic zone but no other significant copper mineralization was intersected. The electromagnetic anomalies appeared to be due to faults.

NAVAJO  
Black Giant Mines Limited  
2002 - 1177 West Hastings Street  
Vancouver, British Columbia

Copper  
115 I 11  
(62°39'N, 137°18'W)

Reference: Tempelman-Kluit (1974a).

Claims: NAVAJO 1-8, 17-24, 33-40, 49-56, 61-68

Location and Access:

The claims are adjacent to the northwest and southwest boundaries of the DEF claim group and lie roughly 15 miles west-northwest of the Minto airstrip. Access in 1974 was by helicopter from the Minto airstrip.

History:

The claims were staked early in 1973, and soil sampling carried out on the property during the summer outlined a number of copper anomalies.

Description:

The property is underlain by medium- to coarse-grained hornblende biotite granodiorite of Triassic age or older (Tempelman-Kluit, 1974a) cut by pegmatite and aplite dykes. Andesite and hornblende biotite feldspar porphyry dykes also cut the granodiorite and trend north to northeast. Foliation of the granodiorite varies from weak to strong and generally trends northwest.

Current Work and Results:

Work in 1974 consisted of geological mapping, a ground magnetic survey, bulldozer trenching and diamond drilling.

The ground magnetic survey outlined a north- to northwest trending anomaly roughly coincident with a copper geochemical anomaly outlined in the

1973 work. Five bulldozer trenches were cut across the anomalous zone and exposed a number of strongly foliated, gneissic zones in granodiorite. The foliated zones are 20 to 30 feet wide, striking roughly north and dipping steeply to the east. Locally, the zones contain abundant magnetite, accounting for the magnetic anomaly, and red garnet, probably almandine. Traces of malachite and azurite occur in fractures and as disseminated grains along foliation planes.

The foliated zones were tested by five diamond-drill holes totalling 2,685 feet. Although strongly foliated zones were intersected, only trace amounts of copper were reported.

#### SUN

United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory;

115 I 11  
(62°38'N, 137°12'W)

Falconbridge Nickel Mines Limited  
P.O. Box 40, Commerce Court West  
Toronto, Ontario  
M5L 1B4

and  
Canadian Superior Exploration Limited  
2201 - 1177 Hastings Street  
Vancouver, British Columbia

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, p. 46).

Claims: SUN 1-24

#### Location and Access:

The claims are adjacent to the eastern boundary of the DEF claim group roughly ten miles west of the Minto airstrip. Access in 1974 was by helicopter from the Minto airstrip or from the DEF property via a four-wheel drive tote road.

#### History:

The claims were staked in September 1971. Geological mapping and soil sampling were undertaken on the property in 1973.

#### Description:

The SUN claims are underlain primarily by poorly foliated, porphyritic hornblende granodiorite of probable Triassic age (Tempelman-Kluit, 1974a) which is intruded by aplite and pegmatite dykes. Foliation trends consistently northwest and dips nearly vertically. No mineral occurrences have been found.

#### Current Work and Results:

In 1974, I.P., magnetic, and E.M.-16 surveys were conducted over the SUN claims. A single, 700-foot hole was diamond drilled on a very low order I.P. anomaly but no mineralization was encountered.

FED  
United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory;

Copper  
115 I 11  
(62°35'N, 137°05'W)

Falconbridge Nickel Mines Limited  
P.O. Box 40, Commerce Court West  
Toronto, Ontario  
M5L 1B4  
and  
Canadian Superior Exploration Limited  
2201 - 1177 Hastings Street  
Vancouver, British Columbia

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, p. 43).

Claims: FED 1-228

Location and Access:

The claims are east of the DEF and MINTO claim groups on the west side of the Yukon River, roughly seven miles west-northwest of the Minto airstrip from which they can be reached by helicopter.

History:

The claims were staked in July 1973. Geological mapping and geochemical soil sampling of the group were begun in 1973.

Description:

The FED claims are underlain mainly by medium- to poorly foliated, hornblende granodiorite of probable Triassic age (Tempelman-Kluit, 1974a) with syenitic and monzonitic phases along the eastern margin. These rocks intrude massive, basaltic volcanics of probable Triassic age (Tempelman-Kluit, 1974) to the east and are in turn overlain by Eocene Carmacks volcanics to the southwest. Mineral occurrences are limited to minor malachite staining along fractures in granitic rocks.

Current Work and Results:

Geological mapping and geochemical soil sampling of the claims, begun in 1973, was completed in 1974. No significant mineral occurrences were found and the geochemical sampling outlined only isolated, low order anomalies.

TIM, JIM, IR  
B.X. Development Limited  
1606 - 1055 West Georgia Street  
Vancouver, British Columbia  
V6E 3P3

Copper  
115 I 11  
(62°34'N, 137°09'W)

Reference: Tempelman-Kluit (1974a).

Claims: TIM 1-8; JIM 1-22, 31-40; IR 1-36

Location and Access:

The claims are situated one-half mile north of Dark Creek roughly eight miles west of Minto. Access to the property in 1974 was by helicopter from the airstrip at Minto.

History:

The claims, staked in the fall of 1973, are southeast of the Minto copper discovery.

Description:

The rocks underlying the property all belong to the Eocene Carmacks Group (Tempelman-Kluit, 1974a) and consist of reddish brown- to brown-weathering, massive basalt and andesite, locally amygdaloidal and carrying chalcedony. North of the property, these volcanics overlies Triassic granodiorite (Tempelman-Kluit, 1974a) which is host to the copper occurrences on the DEF and MINTO properties. Faulting in the central part of the property has produced local brecciation and alteration of the volcanics. Small specks of malachite and/or chrysocolla occur associated with faults in at least two localities.

Current Work and Results:

Field work in 1974 consisted of geological mapping along with magnetic and electromagnetic surveys. The magnetic survey outlined strong north-northeasterly trending anomalies which undoubtedly reflect the high magnetic intensity of the Carmacks volcanics. However, the lowest magnetic values coincide with topographic valleys and may reflect areas where the volcanic cover is relatively thin.

The electromagnetic survey (E.M. 16) outlined a considerable number of conductive zones, most of which were coincident with topographic highs and parallel to the magnetic trend. A few conductors were outlined which transgressed the regional magnetic trend and are probably due to cross faults.

Other than the minor copper oxide stains, no significant copper occurrences have been noted.

A consultant for the company recommended soil sampling and more detailed geophysical surveys (more precise electromagnetic and/or induced polarization surveys) in areas of anomalous soil response.



DARK  
Lion Mines Limited  
821 - 602 West Hastings Street  
Vancouver, British Columbia

115 I 11  
(62°35'N, 137°16'W)

Reference: Tempelman-Kluit (1974a).

Claims: DARK 47-54, 61, 63

Location and Access:

The claims are adjacent to the southern boundary of the MINTO claim group. Access in 1974 was by helicopter from Minto, 12 miles to the east.

History:

The claims were staked in the fall of 1973. No previous work on the property has been reported.

Description:

The property lies within an area mapped entirely as massive andesite and basalt of the Eocene Carmacks Group (Tempelman-Kluit, 1974a). These volcanics overlie Triassic granodiorite which outcrops to the north on the DEF and MINTO claim groups and which is host for the recently discovered copper occurrences.

Current Work and Results:

A magnetometer survey carried out in 1974 indicated relatively low magnetic relief on the property. One low-order anomaly was outlined near the southern end of the claim group.

DARK  
Geo-Dyne Resources Limited  
1606 - 1055 West Georgia Street  
Vancouver, British Columbia

115 I 11  
(62°32'N, 137°16'W)

Reference: Tempelman-Kluit (1974a).

Claims: DARK 41-46, 55-60, 62, 64-70

Location and Access:

The claims are adjacent to the southern boundary of the MINTO claim group and are roughly 12 miles east of Minto. Access in 1974 was by helicopter from the airstrip at Minto.

History:

The claims were staked in September 1973. No previous work on the property is reported.

Description:

The claims lie entirely within an area mapped as massive basalt and andesite of the Carmacks Group of Eocene age (Tempelman-Kluit, 1974a). These volcanics overlie Triassic hornblende granodiorite which is exposed north of

the property. The granodiorite is host to the recently discovered copper deposit on the MINTO and DEF claims.

Current Work and Results:

A ground magnetometer survey conducted in late fall and winter of 1973-1974 outlined strong north- to northeast-trending magnetic anomalies. The magnetic anomalies are probably due, at least in part, to the underlying volcanics. Geological mapping and soil sampling of the claims were recommended by a consultant to the company.

AL, ROD

Bow River Resources Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia  
and  
Northair Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia

115 I 11  
(62°39'N, 137°08'W)

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, p. 44).

Claims: AL 1-24; ROD 1-32

Location and Access:

The claims are on the southwest side of the Yukon River about nine miles west of the Minto airstrip. Access to the property in 1974 was by helicopter from the Minto airstrip and by boat along the Yukon River.

History:

Geological mapping and soil sampling was carried out on the claims in 1972 and 1973. No other work on the property is known.

Description:

Outcrop and near-bedrock float on the property consists of medium- to coarse-grained, hornblende biotite granodiorite of Triassic age or older (Tempelman-Kluit, 1974a) which is intruded by dykes of aplite and pegmatite. Minor limonitic or hematitic stain has been observed but no sulphide occurrences have been found.

Current Work and Results:

In 1974 a single 600-foot diamond-drill hole was put down on the ROD claims. The hole was entirely within granodiorite and encountered no mineralization.

B, SEE  
Consolidated Standard Mines Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia

115 I 11  
(62°40'N, 137°13'W)

References: Tempelman-Kluit (1974a); Craig and Milner (1975).

Claims: B 2-12, 17-40; SEE 1-24

Location and Access:

The claims are situated on the southwest side of the Yukon River immediately east of the DEF claims. Access in 1974 was by helicopter from the Minto airstrip, about 12 miles to the east-southeast.

History:

The B and SEE claims were staked in the fall of 1971. In 1972, geological mapping and soil sampling were carried out on the property. The property was inactive in 1973.

Description:

The property is underlain mainly by hornblende biotite granodiorite of the Klotassin Batholith of Triassic age or earlier (Tempelman-Kluit, 1974a). The granodiorite has a northwest-trending foliation due to alignment of the mafic minerals and is cut by pegmatite and aplite dykes.

Several isolated outcrops of dense, green, altered andesite occur on the southeastern part of the claims and are probably related to Eocene volcanics of the Carmacks Group.

No sulphide occurrences have been reported on the property.

Current Work and Results:

Although no field work was performed on the property in 1974, the soil samples collected during the 1972 survey, which failed to outline any copper, molybdenum or silver anomalies, were re-analyzed for gold and mercury. Two parallel areas of coincident gold and mercury anomalies trending approximately 060° were outlined on the southwest part of the property. The anomalies cut the regional foliation at roughly 90° and probably reflect an underlying fault structure.

MAC, POL, JIM, SAM  
Gold Valley Resources Limited  
210 - 470 Granville Street  
Vancouver, British Columbia

115 I 11  
(62°43'N, 137°15'W)

Reference: Tempelman-Kluit (1974a).

Claims: MAC 1-36; POL 1-36; JIM 1-24; SAM 1-8

Location and Access:

The claims are situated 12 miles northwest of the Minto airstrip on the northeast side of the Yukon River. Access in 1974 was by helicopter from the Minto airstrip although access was also available by a four-wheel

drive truck-road which leaves the Klondike Highway at a point one mile north of the Minto airstrip.

#### History:

The MAC, POL and JIM claims were staked in October 1973 and the SAM claims in June 1974. Gold Valley Resources acquired a 50 per cent interest in the property in May 1974.

#### Description:

The northwest part of the property is underlain by brown, augite basalt and andesite flows of the Pleistocene Selkirk Series (Tempelman-Kluit, 1974a). To the south, these rocks overlie gabbroic to dioritic rocks of Triassic age. Magnetite is a common accessory in the gabbroic to dioritic rocks.

#### Current Work and Results:

Work in 1974 consisted of soil sampling and a ground magnetic survey. Soil samples were analyzed for copper, zinc and silver. No significant anomalies were outlined. The ground magnetic survey outlined a series of northeast-trending anomalies which are probably due to concentrations of magnetite in the underlying gabbroic and dioritic rocks.

M	
Yukon Revenue Mines Limited	115 I 11
117 Industrial Road	(62°41'N, 137°15'W)
Whitehorse, Yukon Territory	

Reference: Tempelman-Kluit (1974a).

Claims: M 1-38

#### Location and Access:

The claims are situated on the southwest side of the Yukon River approximately 14 miles downstream from Minto and five miles north of the Minto copper discovery. The property can be reached by boat from Minto.

#### History:

The claims were staked in May 1974 and subsequently acquired by Yukon Revenue Mines Limited.

#### Description:

The claims are underlain entirely by hornblende biotite granodiorite of the Klotassin Batholith of Triassic age or older (Tempelman-Kluit, 1974a). No occurrences of sulphide minerals have been reported from the property.

#### Current Work and Results:

Hand trenching was carried out on the property in 1974 by Yukon Revenue. This work apparently did not expose any copper mineralization.

COIN  
Taseko Mines Limited  
248 - 2nd Avenue  
Kamloops, British Columbia  
and  
La Ronge Mining Limited  
200 - 124 Seymour Street  
Kamloops, British Columbia  
V2C 2E1

Copper  
115 I 11  
(62°37'N, 137°05'W)

References: Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, pp.48-49).

Claims: COIN 1-24

Location and Access:

The COIN claims lie roughly one and one-half miles west of the Yukon River at a point about seven miles downstream from Minto. Access to the property in 1974 was by helicopter from the Minto airstrip and by boat along the Yukon River.

History:

The original copper showing was discovered and staked in 1902 as the HARLUCK claims and a short adit was put in. The ground was restaked in 1907 as the COPPER COIN group but was subsequently allowed to lapse. The property remained dormant until 1970 when it was restaked as the COIN claims which subsequently lapsed in 1971. The claims were restaked by Taseko Mines Limited in 1971 and a side-hill trench was cut in the area of the old showing in 1972. Geological mapping and geochemical sampling in 1973 included a 45-foot chip sample across the mineralized zone which assayed 0.27 per cent copper, 0.06 ounces per ton silver, and traces of gold. Two grab samples from the vicinity of the old adit assayed: 6.77 per cent copper, 1.28 ounces per ton silver, and less than 0.003 ounces per ton gold; and 4.40 per cent copper, 0.99 ounces per ton silver and 0.011 ounces per ton gold, respectively.

Description:

The property is underlain to the east by andesite, basalt and minor argillaceous sediments of probable Triassic age which are intruded to the west by Triassic granodiorite of the Klotassin Batholith (Tempelman-Kluit, 1974a). The contact zone is a steep north-northwest-trending scarp probably related to faulting associated with the northwestern extension of the Teslin Lineament along the Yukon River valley. In the vicinity of the contact the Triassic volcanics are strongly chloritized and epidotized. The granodiorite is strongly sheared in a north-northwest direction. Locally, near the contact, the granodiorite is more syenitic in composition.

Copper occurs in the altered volcanics as disseminated bornite, chalcopryrite, chalcocite and native copper with malachite staining.

Current Work and Results:

Work on the COIN property in 1974 consisted of three diamond-drill holes totalling 988 feet, all in the vicinity of the main showing near the old adit. The holes encountered highly chloritized and epidotized volcanics intruded by bands (sills?) of syenite porphyry. Bornite and chalcopryrite with minor chalcocite and native copper occur as disseminated grains and small stringers in the altered volcanics, but their distribution appears to be local and erratic.



Big Creek

CAR  
Western Mines Limited  
870 - 505 Burrard Street  
Vancouver, British Columbia;

115 I 5  
(62°25'N, 137°37'W)

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Reference: Tempelman-Kluit (1974a).

Claims: CAR 57-72

Location and Access:

The claims lie on the south side of Big Creek roughly 50 miles west-northwest of Carmacks. The property can be reached by helicopter from Carmacks or from an airstrip on Big Creek, four miles east of the property.

History:

The claims were staked early in 1974 and are currently held under option by Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited.

Description:

The property itself is notably lacking in outcrop but regional mapping indicates that it is underlain by Yukon Group schist and gneiss intruded by syenite of Triassic age (Tempelman-Kluit, 1974a). The Yukon Group rocks underlie the northeastern part of the claims while the central and south-western part of the property is underlain by syenite.

Current Work and Results:

Field work in 1974 on the property consisted of geological mapping, soil sampling and a ground magnetic survey.

Soil sampling outlined a significant copper anomaly roughly 4,000 by 5,000 feet which extends beyond the southern and eastern boundaries of the property. A consultant for the owners recommended further evaluation of this anomaly.

The ground magnetic survey showed relatively flat relief with a low order anomaly in the south-central part of the property.

FOX, BEAR  
Klotassin Joint Venture  
c/o Archer Cathro and Associates Limited  
685 Two Bental Centre  
555 Burrard Street  
Vancouver 1, British Columbia

Copper  
115 I 5  
(62°25'N, 137°36'W)

References: Craig and Laporte (1972, p.75); Tempelman-Kluit (1974a).

Claims: FOX 1-40; BEAR 1-40

Location and Access:

The claims lie on the south of Big Creek roughly six miles east of Prospector Mountain and surround the CAR 57-72 claims of Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited. Access to the property in 1974 was by helicopter from Carmacks, 50 miles to the east-southeast. An old winter road passes through the property along Big Creek.

History:

The property was originally staked as the JOHNNY and CASH groups in 1969 by Coranex Limited and Atlas Explorations Limited. In 1970, Atlas outlined two copper-lead-zinc anomalies corresponding to minor limonite gossans along the northwest side of Big Creek. The claims subsequently lapsed and were restaked in August 1974 as the FOX and BEAR claims by Klotassin Joint Venture, a consortium composed of Newconex Canadian Exploration Limited, Molybdenum Corporation of America and Marietta Resources International Limited.

Description:

The property is underlain to the north by Proterozoic and/or Paleozoic quartz-biotite schist and banded quartzite with minor limestone trending west to west-northwest. Associated with these rocks locally are bodies (dykes?) of gabbroic rocks and at least one outcrop of magnetite skarn. The southern part of the property is underlain by coarse-grained, porphyritic hornblende syenite of Triassic age which exhibits a slight foliation trending northwest. Locally, the syenite contains bodies of a lighter-coloured, medium-grained quartz monzonite which may be younger in age. Tertiary dykes of rhyolite porphyry up to five feet wide intrude all older rocks.

Current Work and Results:

Work on the property in 1974 consisted mainly of soil sampling and a ground magnetic survey. The soil sampling outlined a copper anomaly extending onto the adjoining CAR claims and hand trenching in the area of the anomaly revealed schist and quartz monzonite float with copper oxide stain and locally traces of chalcopyrite with pyrite.

CAR  
Western Mines Limited  
870 - 505 Burrard Street  
Vancouver, British Columbia;

115 I 6  
(62°23'N, 137°18'W)

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Reference: Tempelman-Kluit (1974a).

Claims: 41-56

Location and Access:

The claims are situated on a ridge north of Big Creek, roughly 32 miles west-northwest of Carmacks. The property can be reached by foot from the Carmacks-Freegold Road or by helicopter from Carmacks.

History:

The claims were staked early in 1974 and are currently held under option by Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited.

Description:

The property is underlain mainly by Triassic granodiorite which intrudes Yukon Group schist and gneiss. Dykes of quartz-feldspar porphyry cut the granodiorite (Tempelman-Kluit, 1974a).

Yukon Group rocks occur along the southwestern margin and southern part of the property and consist of quartz schist, biotite schist, chlorite schist and granitic gneiss. Minor skarn or marble has also been observed.

The main body of Triassic granodiorite ranges from hornblende granodiorite to quartz monzonite in composition and is intruded locally by granodiorite to quartz monzonite of Jurassic (?) age and quartz-feldspar porphyry dykes of Eocene age.

No occurrences of sulphides have been observed on the property.

Current Work and Results:

Field work on the property in 1974 consisted of geological mapping, soil sampling and a ground magnetic survey.

The soil sampling showed a limited number of anomalous copper values but failed to outline any significant anomalies.

The ground magnetic survey showed relatively flat relief over the property although several weak highs were outlined. Some of the highs may be associated with Eocene quartz-feldspar porphyry dykes.

Revenue Creek

REVENUE COPPER  
Yukon Revenue Mines Limited  
117 Industrial Road  
Whitehorse, Yukon Territory

Copper, Gold  
115 1 6  
(62°20'N, 137°16'W)

References: Green and Godwin (1964, p.29); Green (1966, pp.31-33);  
Findlay (1969a, pp.38-39; 1969b, p.26); Craig and Laporte (1972, pp. 79-82).

Claims: REVENUE COPPER, REVENUE, REV, ADD, HOMESTAKE, ADDITION, AU, INCA:  
total of 46 claims

Location and Access:

The property is situated on Revenue Creek, on the south side of the valley of Big Creek, 35 miles northwest of Carmacks. The property can be reached by an eight-mile tote road which connects with the Carmacks-Freegold Road. An airstrip on Big Creek Flats near the mouth of Revenue Creek can be used by Beaver and smaller aircraft.

History:

Massive chalcopyrite was discovered on Revenue Creek in 1950 by P.F. Guder of Carmacks. In 1951, Conwest optioned the property and drove a short adit in addition to conducting E.M. and resistivity surveys. Teck Corporation drilled five holes near the adit in 1954 and 1955; and Asbestos Corporation carried out silt and soil geochemical surveys in 1959. In 1964 and 1965 Canex conducted a soil survey and drilled three holes near the adit, which encountered some disseminated copper sulphides. General Enterprises Limited of Whitehorse optioned the property in 1967, and in 1968 Yukon Revenue Mines Limited was formed to continue exploration. In 1968 and 1969, work by Yukon Revenue included an I.P. survey and diamond drilling. One hole cut a 140-foot section assaying 0.12 per cent copper and 0.03 per cent molybdenum sulphide. In 1970, Kaiser Resources took over exploration under a joint agreement and carried out geological and geochemical surveys and a drilling program which included 6,074 feet of diamond drilling in 13 holes and 7,365 feet of percussion drilling in 25 holes. The drilling indicated only low grade copper of the same order as that found in the 1968-1969 program.

Description:

The property is underlain by schist and gneiss of Proterozoic and/or Paleozoic age which have been intruded by a quartz monzonite plug in which several phases have been recognized including hornblende monzonite, biotite monzonite and a low-mafic quartz monzonite. An altered breccia of granitic fragments in an aphanitic ground mass cuts across the complex of monzonitic rocks in an irregular, east-trending belt. Alteration is widespread in the igneous rocks and argillic, phyllic and propylitic zones have been recognized. Massive chalcopyrite and pyrite of the original discovery occur as a pod in the centre of the altered breccia although most of the copper in the monzonite and breccia phases occurs as disseminated chalcopyrite. Molybdenite is rare and occurs only in quartz veins cutting the monzonite. Malachite and azurite are present in the top 100 feet of bedrock.

### Current Work and Results:

In 1974, Yukon Revenue did some bulldozer trenching to test coincident copper geochemical and electromagnetic anomalies and some previously known mineralized zones.

### Mount Freegold

GOLD STAR	Gold, Silver
Dynasty Explorations Limited	115 I 6
330 - 355 Burrard Street	(62°17'N, 137°09'W)
Vancouver, British Columbia	

References: Bostock (1936); Johnston (1937); Tempelman-Kluit (1974a).

Claims: GOLD STAR Group ( AUGUSTA, MARGARETE, GOLD STAR, PEERLESS, PROTECTION, SHEARZONE 1-2, VINDICATOR 1-2, LIBERTY, EXCELSIOR 1-3, PROGRESS 1-2, GREENSTONE 1-6); AU 1-44; AG 1-36; PEG 1-24; ADD 1-16; total of 141 claims and fractions

### Location and Access:

The claims are situated on Mount Freegold 30 miles northwest of Carmacks and are readily accessible by a short, four-wheel drive road which connects with the Carmacks-Freegold Road.

### History:

The original property was discovered and staked by P.F. Guder in 1930, who has carried out work on the property intermittently since then, mainly hand trenching and sinking shallow shafts by hand. In 1959, Conwest Exploration Company Limited drilled five short holes totalling 1,014 feet. Yukon Revenue Copper had an option on the property in 1969 and carried out detailed geological mapping and limited soil sampling. In 1973, the GOLD STAR Group was optioned by Prism Resources who staked 24 additional claims (PEG 1-24), and carried out a magnetometer survey which outlined two significant magnetic anomalies. The AU, AG and ADD claims were also staked in 1973 and the property subsequently optioned by Dynasty from P.F. Guder, E. Campbell and Prism Resources Limited.

### Description:

The rocks underlying the property consist mainly of Yukon Group metasediments and metavolcanics intruded by Triassic or older hornblende granodiorite and porphyritic hornblende syenite (Johnston, 1937; Tempelman-Kluit, 1974a). All of the aforementioned rocks are intruded by later, quartz-feldspar porphyry dykes of Tertiary age. Gold mineralization is present in siliceous zones within and at the contacts of quartz-feldspar porphyry dykes and in magnetite-chlorite-epidote skarns within the Yukon Group.

The discovery zone on the AUGUSTA claim is in a body of magnetite replacing a limy layer in Yukon Group quartzite and schist. The magnetite zone trends northwest and is roughly 300 feet long and up to 27 feet wide. The upper, oxidized part of this zone carries free gold, and assays as high as several ounces per ton have been obtained. The unoxidized part of this zone generally carries much lower values.



On the MARGARETE claim, gold occurs in a quartz-rich zone at the contact of a quartz-feldspar porphyry dyke and quartz-feldspar-chlorite gneiss of the Yukon Group. The zone trends west and is up to two feet wide. Johnston (1937) reports assays as high as 60 ounces per ton gold for selected samples from this zone.

#### Current Work and Results:

In 1974, Dynasty carried out a program of mapping, soil sampling, magnetic surveying, bulldozer trenching and diamond drilling aimed primarily at testing the zone on the MARGARETE claim and the magnetite skarns indicated by the 1973 magnetic survey. A total 37,800 cubic yards were trenched and eight holes were drilled for a total of 2,142 feet. The results of this work indicated low grade gold-silver mineralization on the MARGARETE vein zone, generally less than 0.3 ounces per ton gold and 1.0 ounces per ton silver over five feet and low, uneconomic gold and silver values in the magnetite skarns.

LAFORMA  
Discovery Mines Limited  
1011 - 2200 Yonge Street  
Toronto, Ontario  
M4S 2C6

Gold, Silver  
115 I 6  
(62°16'N, 137°07'W)

References: Green (1966, pp.29-31); Tempelman-Kluit (1974a).

Claims: LAFORMA Group; Total of 32 claims

#### Location and Access:

The property is located on Freegold Mountain and can be reached by a 41-mile road from Carmacks.

#### History:

The property was originally staked in 1933 following the discovery of high grade gold-quartz veins. Since then, the property has produced 1,414 ounces of gold in a period from January 1939 to June 1940, and 1,610 ounces of gold and 570 ounces of silver from June 1965 to February 1966. The property is currently owned by Discovery Mines Limited, formed by amalgamation of Consolidated Discovery Yellowknife Mines Limited and Ormsby Mines Limited in 1964 (Green, 1966, pp.29-31).

#### Description:

The property is underlain by medium- to coarse-grained hornblende granodiorite of Triassic age or older that has been intruded by andesite porphyry, quartz-feldspar porphyry and rhyolite porphyry dykes of Tertiary age (Tempelman-Kluit, 1974a). The granodiorite is cut by two sets of steeply dipping fracture systems and shear zones striking northeast and northwest respectively. The northeast-trending system contains most of the important vein systems discovered to date, including the G-3, a 10- to 40-foot wide shear zone on which most of the underground work has been done (Green, 1966, pp.29-31).

#### Current Work and Results:

With the current increase in the price of gold, Rayrock Mines Limited and Ashland Oil Canada Limited are financing a re-evaluation of the Laforma

property beginning with a soil geochemical survey in 1974.

CAR  
Western Mines Limited  
870 - 505 Burrard Street  
Vancouver, British Columbia;

Copper  
115 I 6  
(62°19'N, 137°08'W)

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Reference: Tempelman-Kluit (1974a).

Claims: CAR 1-40

Location and Access:

The property lies 32 miles west of Carmacks on the northeast slope of Freegold Mountain. The property is accessible from the Carmacks-Freegold Road.

History:

The claims were staked early in 1974 and are currently held under option by Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited.

Description:

The claims are underlain by Yukon Group gneiss and schist intruded by granitic rocks ranging from Triassic to Tertiary in age (Tempelman-Kluit, 1974a).

Yukon Group rocks underlie the western part of the property and consist of hornblende to biotite schist and gneiss, chlorite schist, quartz schist and quartz-sericite schist.

On the eastern part of the property the Yukon Group rocks are intruded by syenite and granodiorite of Triassic to Jurassic age and quartz-feldspar dykes of Tertiary age.

A fault, trending slightly east of north, is thought to exist between Yukon Group rocks on the western part of the property and the intrusive rocks to the east.

The central part of the property is underlain by highly altered granodiorite with a central core of kaolinization and silicification, and a peripheral zone of quartz veining with pyrite. Minor amounts of chalcopyrite are reported in the peripheral zone. Chloritization and epidotization have been noted beyond the peripheral zone.

Current Work and Results:

Geological mapping, soil sampling and a ground magnetometer survey were carried out in 1974.

A number of anomalous copper and antimony values were found in the soil samples and although no highly anomalous areas were outlined, there appeared to be a slight increase in both copper and antimony in soils over the altered granodiorite.

The magnetic survey indicated generally low magnetic relief in the area of the altered granodiorite and a pronounced northerly trend over the postulated fault between the Yukon Group rocks and the intrusive rocks.

MJK  
Western Mines Limited  
870 - 505 Burrard Street  
Vancouver, British Columbia;

Copper  
115 I 3, 6  
(62°15'N, 137°08'W)

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and

Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Reference: Tempelman-Kluit (1974a).

Claims: MJK 1-32

Location and Access:

The claims are situated immediately south of the Laforma gold property on the south side of Seymour Creek roughly 32 miles west-northwest of Carmacks. The property can be easily reached from the Carmacks-Freegold Road which passes very close to the northern boundary of the claims.

History:

The claims were staked in the spring of 1974 and are currently under option to Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited. The extent of previous work on the property is not known but the area has undoubtedly been prospected since gold was discovered on Freegold Mountain in 1930.

Description:

The property is underlain primarily by Triassic hornblende syenite which is intruded by granodiorite and quartz monzonite of Jurassic age and quartz porphyry dykes and feldspar porphyry andesite of Tertiary age (Tempelman-Kluit, 1974a). Minor chalcopyrite was observed in an outcrop of Jurassic granodiorite.

Current Work and Results:

Geological mapping, soil sampling and a ground magnetic survey were carried out on the property in 1974.

The soil sampling failed to outline any anomalies although some threshold values for copper were obtained.

The magnetic survey showed relatively flat magnetic relief with only a few, isolated highs.

MJK

Western Mines Limited  
879 - 505 Burrard Street  
Vancouver, British Columbia;

115 I 6  
(62°15'N, 137°12'W)

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and

Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

References: Bostock (1938, p.11; 1939, pp.15-16; 1941, pp.23-24);  
Findlay (1969b, p.23); Tempelman-Kluit (1974a).

Claims: MJK 33-44

Location and Access:

The claims are located on the west side of Caribou Creek, roughly 32 miles west-northwest of Carmacks. The property can be easily reached from the Carmacks-Freegold Road.

History:

The claims were staked in the spring of 1974 and are currently under option to Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited. The claims are adjacent to the HOPE claim (formerly the Caribou Creek gold property) from which a small amount of gold was produced in the late 1930's and trenches on the MJK claims are evidence of prior work on this property.

Description:

The property is underlain mainly by Triassic hornblende syenite and quartz monzonite intruded by Tertiary quartz-feldspar porphyry and overlain by Jurassic Laberge Group sediments.

The hornblende syenite and quartz monzonite underlie the central and northern part of the claim group and appear to be inter-tongued. Feldspar porphyry and quartz porphyry dykes cut the syenite and have a general north-west trend.

On the southern part of the claims, the intrusive rocks are overlain by massive, thick beds of sandstone and conglomerate assigned to the Laberge Group of Lower to Middle Jurassic age.

Quartz veins were observed in one outcrop of Laberge sediments west of Caribou Creek. The veins strike southwest and dip vertically.

On the HOPE claims to the east, gold was reported to occur in thin,

closely-spaced quartz veinlets in a black, argillaceous quartzite or greywacke.

#### Current Work and Results:

Property work in 1974 included geological mapping, soil sampling and a ground magnetic survey.

The soil sampling showed one anomalous copper value in the vicinity of a contact between syenite and granodiorite. A number of threshold values of copper and a single threshold value of antimony were obtained in the area underlain by Laberge Group sediments.

The magnetic survey showed very little relief over the Laberge sediments. The intrusions gave higher relief but no apparent pattern. Magnetite was observed in one outcrop of granodiorite associated with a local magnetic high.

#### Granite Mountain

TINTA	Gold, Silver, Lead, Zinc,
Exeter Mines Limited	Copper
519 - 602 West Hastings Street	115 1 7
Vancouver, British Columbia	(62°18'N, 136°57'W)

References: Bostock (1941, p.26); Skinner (1961, pp.35-36); Findlay (1969a, p.34); Craig and Laporte (1972, p.85); Tempelman-Kluit (1974a); Sinclair and Gilbert (1975, pp.37-38).

Claims: TINTA 1-27, 37-53, 55-56, 58-59

#### Location and Access:

The property is 24 miles northwest of Carmacks at the headwaters of Stoddard and Merrice Creeks on the southern slope of Granite Mountain. Access in 1974 was by a six-mile, four-wheel drive tote road leading north from Mile 32 on the Mount Freegold road.

#### History:

The property was first staked in 1930 to cover a quartz vein and has been explored intermittently since then (Skinner, 1961, pp.35-36). Canex Aerial Exploration restaked the ground in 1966 and carried out an E.M. 16 survey and a soil geochemical survey. Silgold Mines Limited optioned the property in 1968 and carried out sampling of the veins. Coin Canyon Mines Limited acquired an interest in the claims in 1969 and did some soil sampling. Late in 1973, the claims were returned to the original owner (renamed Canex Placer Limited in 1972) and were subsequently optioned by Exeter Mines Limited. Exeter drilled four holes totalling roughly 1,000 feet late in 1973. Additional claims were staked in 1974.

#### Description:

The property is underlain primarily by Triassic granodiorite to quartz diorite of the Klotassin Batholith which is capped locally by Eocene Carmacks volcanics (Tempelman-Kluit, 1974a). Quartz veins with well-defined walls of granite occur within shear zones up to 100 feet wide trending northeast and dipping steeply to the north. Mineralized zones in the veins are two and one-half to ten feet wide and consist of an assemblage of galena, sphalerite,



chalcopyrite, tetrahedrite and pyrite with azurite and malachite. Chalcopyrite and pyrite are also disseminated in the wall rocks on both sides of the veins. Alteration in the vicinity of the shear zones includes potash feldspathization, sericitization, chloritization and silicification.

#### Current Work and Results:

Work on the property in 1974 included an E.M. survey, bulldozer trenching and 4,041 feet of diamond drilling in 21 holes. Results of the drilling reported by Exeter Mines indicated one mineralized zone containing 1,875 tons per vertical foot grading 0.075 ounces per ton gold, 5.35 ounces per ton silver, 4.71 per cent lead, 6.03 per cent zinc, 0.37 per cent copper and 0.049 per cent cadmium. Additional parallel and sub-parallel shear zones were outlined by the E.M. survey.

WON  
D.C. Syndicate  
1720 - 1055 West Hastings Street  
Vancouver, British Columbia

115 I 7  
(62°20'N, 136°55'W)

Reference: Tempelman-Kluit (1974a).

Claims: WON 1-16

#### Location and Access:

The claim group is situated on the north slope of Granite Mountain 25 miles northwest of Carmacks and roughly 17 miles south of Minto. In 1974, the property was serviced by helicopter from the Minto airstrip.

#### History:

The claims were staked in June 1974 during the course of a reconnaissance prospecting and geochemical sampling program.

#### Description:

The property is underlain primarily by hornblende granodiorite of Triassic age or older (Tempelman-Kluit, 1974a). Fractures in the granodiorite contain pyrite but no mineral showings of economic interest were found.

#### Current Work and Results:

Soil sampling was carried out on the property in 1974.

Hootchekoo Creek

BUT

Canadian Superior Exploration Limited  
2201 - 1177 West Hastings Street  
Vancouver, British Columbia  
V6E 2K3

115 I 7  
(62°24'N, 136°54'W)

Reference: Tempelman-Kluit (1974a).

Claims: BUT 1-98

Location and Access:

The property is situated roughly five miles east of Big Creek and 30 miles northwest of Carmacks. Access in 1974 was by helicopter from Minto, 13 miles to the north.

History:

The BUT claims were staked in April 1974 by Canadian Superior Explorations Limited. No previous work in the area has been reported.

Description:

The property covers an area of Pelly Gneiss which appears to be a roof pendant within Triassic Klotassin granodiorite. To the southwest, both the Pelly Gneiss and Klotassin granodiorite are overlain by younger Carmacks Group volcanics of Eocene age (Tempelman-Kluit, 1974a). No mineral showings are known to occur on the property.

Current Work and Results:

Geological mapping and soil sampling were carried out on the property by Canadian Superior in 1974 but no anomalous areas were outlined.

DEL

United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory  
and  
Falconbridge Nickel Mines Limited  
P.O. Box 40, Commerce Court West  
Toronto, Ontario  
M5L 1B4

Copper  
115 I 7  
(62°27'N, 136°45'W)

Reference: Tempelman-Kluit (1974a).

Claims: DEL 1-84

Location and Access:

The claims are situated on the southwest side of the Yukon River immediately north of Hootchekoo Creek and 29 miles northwest of Carmacks. Access in 1974 was by helicopter from the Minto airstrip, ten miles to the north-northwest.

### History:

The claims were staked during the winter of 1973-74 to cover some malachite showings exposed during the building of an access road to the DEF copper property. No previous work on the property is known.

### Description:

The property is underlain almost entirely by massive green volcanics, primarily pillowed andesites, of probable Triassic age (Tempelman-Kluit, 1974a). Locally the volcanics are intruded by hornblende diorite and by dykes of felsite and quartz felsite. Felsite and quartz felsite flows overlie the volcanics. Locally, poorly sorted pebble and boulder conglomerate of uncertain age also overlies the volcanics.

The copper showings consist mainly of malachite, azurite, chalcopyrite and pyrite associated with basic dykes in the hornblende diorite. Chalcocite, with a significant silver content, occurs as fracture fillings in fractured and altered felsite.

### Current Work and Results:

Field work in 1974 consisted of geological mapping and geochemical soil sampling for copper and silver. No significant copper occurrences were discovered and the geochemical survey failed to outline any significant anomalies.

### Williams Creek

BAY	
Hudson Bay Oil and Gas Company Limited	115 I 7
320 - 7th Avenue Southwest	(62°23'N, 136°45'W)
Calgary 2, Alberta	

Reference: Tempelman-Kluit (1974a).

Claims: BAY 1-204

### Location and Access:

The property straddles Hootchekoo Creek, roughly three miles north of the Williams Creek property of Dawson Range Joint Venture. In 1974, the property was serviced by helicopter from Carmacks, 27 miles to the southeast.

### History:

The claims were staked early in 1971 and reconnaissance geological mapping, soil sampling and a ground magnetometer survey followed by detailed soil sampling and trenching of copper geochemical anomalies were conducted that summer.

### Description:

The northeast part of the property is underlain by massive, green, basaltic volcanics of probable Upper Triassic age (Tempelman-Kluit, 1974a). To the southwest this is intruded by and possibly in fault contact with hornblende granodiorite of Triassic age or older (op.cit). The granodiorite is cut by quartz veins and pegmatite dykes and a fresh basaltic dyke probably

related to the Eocene Carmacks volcanics. Laberge Group conglomerate outcrops locally.

#### Current Work and Results:

In 1974, Hudson Bay Oil and Gas Limited carried out reconnaissance I.P. and V.L.F.-E.M. surveys followed by detailed I.P. and geochemical soil sampling on the BAY claims. Four northwest-trending anomalous zones of possible interest were outlined, two of which have strong E.M. responses coincident with weak I.P. and geochemical expressions. One anomalous zone has coincident E.M. and soil geochemical responses and the fourth anomalous zone is expressed in the E.M. and I.P. results.

#### Merrice Creek

BOB, STELLA	Copper
American Smelting and Refining Company Limited	115 I 7
504 - 535 Thurlow Street	(62°22'N, 136°36'W)
Vancouver, British Columbia	

References: Cairnes (1910, pp.57-60); Tempelman-Kluit (1974a).

Claims: BOB 1-8, 13-22; STELLA 1-16

#### Location and Access:

The claims are situated on the east side of Merrice Creek, roughly two miles south of the Yukon River. Access in 1974 was by helicopter from Carmacks, 20 miles to the south-southeast.

#### History:

The claims were staked in May 1974 to cover old copper showings originally discovered and investigated during the period 1907-09 (Cairnes, 1910, pp.57-60). Since then the property appears to have been inactive until the recent re-staking by Asarco.

#### Description:

The property lies within an area of hornblende granodiorite of Triassic age or older (Tempelman-Kluit, 1974a). To the northeast the granodiorite is in fault contact with massive basaltic volcanics of probable Upper Triassic age (op.cit.).

The copper occurrences are described by Cairnes (1910, pp.57-60) as veins consisting of bornite and chalcopyrite in zones of foliated amphibolite along which various amounts of quartz have been introduced. The width of the veins varied from 14 inches up to six feet six inches and selected samples of high grade ore averaged 0.92 per cent copper, 1.30 ounces per ton silver and 0.05 ounces per ton gold.

#### Current Work and Results:

In 1974, Asarco mapped the property and conducted reconnaissance soil and silt sampling.

Victoria Creek

CAR	
Western Mines Limited	115 I 3
870 - 505 Burrard Street	(62°07'N, 137°03'W)
Vancouver, British Columbia;	

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia  
and  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Reference: Tempelman-Kluit (1974a).

Claims: CAR 73-88

Location and Access:

The claims are situated south of Victoria Mountain on Granite Creek, a tributary of Victoria Creek. Access to the property in 1974 was by helicopter from an airstrip on Victoria Creek or from Carmacks, roughly 32 miles to the east.

History:

The claims were staked early in 1974 and are currently under option to Western Mines Limited, Cream Silver Mines Limited and Belmoral Mines Limited.

Description:

The property is underlain mainly by schist and gneiss of the Yukon Group intruded by quartz monzonite and syenite of Triassic age (Tempelman-Kluit, 1974a).

Current Work and Results:

In 1974, geological mapping, soil sampling and a ground magnetic survey were carried out on the claims.

The soil sampling indicated a weak copper anomaly in the north-central part of the claim group in an area underlain by Yukon Group schist near a contact with Triassic syenite.

The magnetic survey showed relatively flat magnetic relief except in the central portion of the property where a weak magnetic high appears to be associated with a quartz monzonite intrusion.



Victoria Mountain

VIC  
Skyline Explorations Limited  
609 - 850 West Hastings Street  
Vancouver, British Columbia

115 I 3  
(62°09'N, 137°12'W)

Reference: Tempelman-Kluit (1974a).

Claims: VIC 3-46

Location and Access:

The claims are situated 29 miles west of Carmacks on the northwest slope of Victoria Mountain at elevations of 4,500 to 5,500 feet. Access to the property in 1974 was by the Mount Nansen Road and then by a four-wheel drive road to the property itself.

History:

The VIC claims were staked in June 1973 and subsequently optioned to Skyline Explorations Limited. No previous work on the property has been reported.

Description:

The property appears to be underlain entirely by coarse-grained, porphyritic syenite of Triassic age which has been intruded by feldspar porphyry dykes of Tertiary age (Tempelman-Kluit, 1974a).

Current Work and Results:

In 1974, Skyline carried out extensive bulldozer trenching on the property.

Mount Nansen

RICO  
AEX Minerals Corporation  
330 - 355 Burrard Street  
Vancouver, British Columbia

115 I 3  
(62°08'N, 137°20'W)

Reference: Tempelman-Kluit (1974a).

Claims: RICO 1-8, 31-46, 79-96; A 1-8; AX 1-12

Location and Access:

The property is located two miles north of Mount Nansen and 34 miles west of Carmacks. Access is by helicopter from Carmacks.

History:

The RICO claims were staked in the summer of 1973. The A and AX claims were added the following year.

Description:

The property is underlain by volcanic and intrusive rocks of Mesozoic

and Tertiary age. The south side of the property is underlain by flat-lying porphyritic andesite or dacite of the Mount Nansen Group. This is in sharp contact to the north with medium- to coarse-grained grey granodiorite. The northern part of the property is underlain by medium- to coarse-grained, light pink granite. Dykes and plugs of fine-grained porphyritic granite and aplite intrude both the volcanics and the granodiorite. A large area of porphyritic granite also occurs between the granodiorite and the granite to the north.

#### Current Work and Results:

Work in 1974 consisted of geological mapping, geochemical silt and soil surveys, and a magnetometer survey. Soil samples anomalous in copper, lead, zinc and silver were found to coincide with a negative magnetic anomaly and favourable bedrock lithology.

#### Kirkland Creek

SHAD	Copper
Union Miniere Explorations and Mining	115 H 9
Corporation Limited	(61°40'N, 136°20'W)
200 - 4299 Canada Way	
Burnaby, British Columbia	

Reference: Tempelman-Kluit (1974b).

Claims: SHAD 1-8

#### Location and Access:

The claims are situated on Kirkland Creek approximately 30 miles south of Carmacks. Access is by helicopter.

#### History:

The claims were staked in August 1974. No previous work in the area has been reported.

#### Description:

The area is underlain by massive green Triassic (?) volcanics that, to the southeast, are intruded by hornblende granodiorite of probable Triassic age (Tempelman-Kluit, 1974b). Disseminated bornite and pyrite occur in the volcanics adjacent to the contact with the granodiorite.

#### Current Work and Results:

Geological mapping and soil, stream and rock geochemical sampling were carried out in 1974. No significant anomalies and only minor copper showings were found and no further work on the property is planned.

## ANVIL RANGE AREA

### Rose Creek

ANVIL MINE  
Anvil Mining Corporation Limited  
1550 Alberni Street  
Vancouver, British Columbia

Lead, Zinc, Silver  
105 K 2, 3, 6  
(62°21.5'N, 133°22'W)

References: Chisholm (1957); Roddick and Green (1961a); Green and Godwin (1964, pp.31-32); Green (1965, pp.36-37; 1966, pp.47-50); Findlay (1967, pp.35-39; 1969a, pp.43-45; 1969b, pp.29-30); Tempelman-Kluit (1972); Craig and Laporte (1972, pp.94-96); Brock (1973); Sinclair and Gilbert (1975, pp.50-52).

Claims: FARO, GAL, ED, SUN, RICH, DY, GALE, DEA, LEA, PEA, SEA, SB, DP, KAY, MOR, SINK, LO, TIE, ROCK, BILL - approximately 2,000 claims

### Location and Access:

The Anvil Mine is situated in the Anvil Range, 143 miles northeast of Whitehorse. Ore concentrates are trucked to Whitehorse in 30-ton containers that are then transferred to railroad cars and shipped to Skagway via the White Pass and Yukon Route.

### History:

The property was originally staked in 1956 by Prospectors Airways but subsequently allowed to lapse. In 1963 the Dickson-Yukon Syndicate staked the ROSE claims over the GAL group but these were also allowed to lapse and were restaked by Dynasty Explorations Limited late in 1964.

In 1965, a program of airborne magnetic and electromagnetic surveys, together with gravity surveys, geochemical sampling and geological mapping, outlined a number of coincident anomalies. Rotary drilling resulted in the discovery of the Faro No. 2 ore deposit in June 1965. Late in 1965, Anvil Mining Corporation Limited was formed as a private company (Cyprus Mines Corporation, 60 per cent, Dynasty Explorations, 40 per cent) to develop the Faro deposit. In late 1969, the mine was brought into production and the first concentrates were shipped to Japan.

In April 1975, Dynasty Explorations Limited merged with Anvil Mining Corporation to form Cyprus Anvil Mining Corporation.

### Description:

The rocks underlying the property consist of pelitic schist and calc-silicate phyllite of Cambrian age (Unit 2, Tempelman-Kluit, 1972). The ore occurs as massive sulphides in pelitic schist overlain by calc-silicate phyllite and occurs in three zones along a 6,600 foot strike length. The main zone (Faro No. 1) is a northwest-striking, shallowly southwest-dipping lens 2,400 feet wide. The ore body is tabular in longitudinal section and lenticular in cross section. Galena and sphalerite, the principal ore minerals, are associated with pyrite and pyrrhotite.

### Current Work and Results:

During 1974, production at the mine continued at a daily rate of 8,865 tons. Exploration on the property consisted of Turam EM, gravity and

magnetic surveys and roughly 3,000 feet of diamond drilling in three holes. Summarized operating results for 1974 and the two previous years are:

	1974	1973	1972
Tons milled	2,925,359	2,899,124	2,906,000
Daily rate (tons)	8,865	7,942	7,935
Mill Heads:			
Lead (%)	} 10.00	} 11.25	4.6
Zinc (%)			6.2
Silver (oz/ton)	1	1	1
Ore Reserves (tons)	49,674,000	52,599,000	55,498,000

#### MING

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

105 K 6  
(62°25'N, 133°04'W)

References: Craig and Laporte (1972, pp.96-97); Tempelman-Kluit (1972).

Claims: MING 1-16

#### Location and Access:

The claims are situated 14 miles northeast of Faro and 34 miles northwest of Ross River. Access is by helicopter.

#### History:

The MING claims were staked in the summer of 1973 on behalf of Vestor Explorations Limited and Cream Silver Mines Limited following a regional survey. Vestor's interest was subsequently acquired by Cream Silver.

#### Description:

Outcrops in the west-central part of the claims consist of metatuffs and meta-andesites of Cambrian-Ordovician (?) age (Unit 3, Tempelman-Kluit, 1972). These rocks occur in the same sequence as the phyllitic rocks which host the zinc-lead ore deposits of the area. To the north these rocks are overlain by basaltic flows of Pennsylvanian to Permian age (Unit 8, Tempelman-Kluit, 1972). No occurrences of sulphides have been observed on the property.

#### Current Work and Results:

Geological mapping and soil sampling were carried out on the property in 1974. The soil sampling failed to outline any zinc or lead anomalies.

Vangorda Creek

GRUM  
Kerr Addison Mines Limited;  
Vangorda Mines Limited  
P.O. Box 91, Commerce Court West  
Toronto, Ontario  
M5L 1C7  
and  
AEX Minerals Corporation  
330 - 355 Burrard Street  
Vancouver, British Columbia

Lead, Zinc, Silver  
105 K 6  
(62°15'N, 133°10'W)

References: Chisholm (1957); Green and Godwin (1964, p.31); Tempelman-Kluit (1972).

Claims: GRUM 1-3, 5; CHUCK 1, 2, 5-8; MAC 1, 2; TIM 1-3, 6, 7; FIRTH 6-8; HANK 2-8; SALLY 1-4; WYNNE 6-8; ALICE 1-8; ROCKY 1, 3, 5, 7, 8; ELLEMAY 3, 4; JACK 1-5; BIX 2, 3; CHAMP 1-8: total of 63 claims and fractions

Location and Access:

The property is situated roughly five miles northeast of Faro and straddles the Vangorda-Swim Lakes Road which provides ready access to the property.

History:

The property was originally staked and explored in the period 1953-55 following the Vangorda Creek sulphide discovery (Green and Godwin, 1964, p.31). During this program, two small sulphide bodies designated the Champ and the Firth were discovered on the property west of the Vangorda ore body. Subsequently very little work was done on the property until AEX Minerals Corporation entered into an option agreement with Kerr Addison and Vangorda Mines in 1973. Late in 1973, AEX drilled four holes, the last of which intersected a significant section of massive zinc-lead sulphides.

Description:

The area is underlain primarily by greenish-grey, chlorite-muscovite-quartz phyllite, locally graphitic or calcareous and probably of Cambrian age (Unit 3, Tempelman-Kluit, 1972). These rocks are on the southwest limb of the Anvil Arch and are strongly foliated along northwest-trending axes and dip moderately to gently to the southwest. North of the property the phyllite is intruded by Cretaceous granodiorite of the Anvil Batholith.

Current Work and Results:

Drilling on the property in 1974 began in April, and by June the existence of a significant deposit was known (Northern Miner, June 27 1974). By mid-September there were four drills operating on the property and drilling continued until mid-December. Total drilling in 1974 amounted to 55,784 feet in 60 holes.

The deposit, named the Grum ore body after the claims on which the initial discovery was made, is situated between the Champ and Firth bodies and is probably an extension of both of these deposits. It is elliptical in plan with a northwest-trending long axis of 5,000 feet and a short axis of 1,200



feet. Ore is concentrated in a series of massive sulphide lenses and mineralized phyllite separated by weakly to non-mineralized host rocks and plunging gently to the northwest. The sulphide horizons vary in thickness from a few feet up to nearly 300 feet and occur at depths from 130 to 1,500 feet below surface. The full extent of the ore body is not yet determined.

The host rocks of the deposit have been divided into six units. Unit 1 is a green chlorite-sericite-quartz phyllite which grades into fine-grained, grey sericite-quartz phyllite designated Unit 2. Units 1 and 2 form the hanging wall of the deposit. Units 3 and 4 within the ore body consist of black, graphitic phyllite and white, 'bleached' sericite-quartz phyllite respectively. Unit 4 has a tendency to form "haloes" around sulphide zones and appears to have been caused by hydrothermal alteration. Biotite-muscovite phyllite of Unit 5 forms the footwall of the deposit and is probably in fault contact with the underlying garnet-staurolite-biotite schist of Unit 6.

The principal ore minerals are sphalerite and galena with minor chalcopyrite together with associated pyrite and commonly white barite in rich ore. Minor amounts of pyrrhotite, magnetite and arsenopyrite occur within massive sulphide sections.

Geophysical aids to exploration are: electromagnetic (Turam) for locating graphitic zones; magnetic (fairly weak) for local magnetite content; and gravity surveys. Residual gravity anomalies outline the zone of mineralization fairly well where near surface although comparable anomalies occur in non-mineralized areas.

More drilling is planned for the deposit in 1975.

#### Blind Creek

ELLE	
Teck Mining Corporation Limited	105 K 6, 7
700 - 1177 West Hastings Street	(62°17'N, 133°01'W)
Vancouver, British Columbia	
V6E 2K5	
and	
Silver Standard Mines Limited	
904 - 1199 West Hastings Street	
Vancouver, British Columbia	

Reference: Tempelman-Kluit (1972).

Claims: ELLE 1-89

Location and Access:

The claims lie on the northwest side of Blind Creek roughly 11 miles east-northeast of Faro. Access in 1974 was by helicopter.

History:

The claims were staked in June 1974.

Description:

The claims appear to be underlain by Cambrian(?) and Ordovician (?) phyllite (Unit 3, Tempelman-Kluit, 1972) which is intruded to the west by

Cretaceous granodiorite (Unit 11, op.cit). No mineral showings have been reported.

#### Current Work and Results:

Geological mapping, soil and stream geochemical sampling, and ground magnetic and VLF-EM surveys were conducted in 1974.

LISA  
Ridgemont Mining Corporation  
1550 Alberni Street  
Vancouver, British Columbia

Lead, Zinc, Copper  
105 K 7  
(62°22'N, 132°50'W)

References: Findlay (1967, p.39); Tempelman-Kluit (1972); Sinclair and Gilbert (1975, pp.55-56).

Claims: LISA 1-41

#### Location and Access:

The claims are situated 16 miles east of the Anvil Mine roughly 18 miles northeast of Faro. Access in 1974 was by helicopter from Faro or by tracked vehicle via Blind Creek.

#### History:

The property was originally staked in 1965 by Dynasty Explorations Limited as the ACE group. In 1966, Dynasty carried out ground magnetic and electromagnetic surveys and soil sampling. The property was transferred to Anvil Mining Corporation Limited in 1966 and four holes diamond drilled for a total of 1,966 feet. Two more holes were drilled in 1967.

The property was restaked in 1971 as the MAG claims by Spartan Explorations Limited in a joint venture with Preussag A.G. Metall. and a program of geological, geochemical, magnetic and I.P. surveys carried out. The claims were allowed to lapse in 1972 and were subsequently restaked as the LISA claims by Ridgemont Mining Corporation, a subsidiary of Cyprus Mines Corporation. Geological mapping was conducted on the property in 1973.

#### Description:

The property is underlain by greenish-grey, chlorite-muscovite-quartz phyllite of probable Cambrian age (Unit 3, Tempelman-Kluit, 1972). Foliation trends northwest to northeast and dips 40° to 60° north. Chalcopyrite and pyrrhotite are reported from four localities in blocky, quartz-rich phyllite.

#### Current Work and Results:

Field work in 1974 consisted of soil sampling and magnetic and electromagnetic (Turam) surveys over the southern half of the property. The company reported that the results were not encouraging.

Tay River

DANA  
Ridgemont Mining Corporation  
1550 Alberni Street  
Vancouver, British Columbia

Lead, Zinc, Copper  
105 K 11  
(62°35'N, 133°17'W)

References: Findlay (1967, p.39); Tempelman-Kluit (1972); Sinclair and Gilbert (1975, pp.59-60).

Claims: DANA 1-76; HAL 1-24; HALO 1-12

Location and Access:

The property is situated roughly 23 miles north of Faro from which it can be reached by helicopter.

History:

The property covers the original IVAN claims staked by Anvil Mining Corporation who drilled four diamond drill holes totalling 1,553 feet in 1966. The claims were subsequently restaked as the TER claims by Inter Tech Development and Resources Limited in 1969. These claims also lapsed and were restaked as the DANA claims in 1973 by Ridgemont Mining Corporation, a subsidiary of Cyprus Mines Corporation who carried out a program of soil sampling on the property. The HAL claims were acquired by Anvil Mining Corporation Limited from Northern Homestake Mines Limited who in turn had acquired the claims from Northern Empire Mines Limited in 1971. The HALO claims were staked by Anvil Mines in 1974.

Description:

The property is underlain by Devonian and Mississippian slate, chert, greywacke, chert-pebble conglomerate and limestone (Unit 7, Tempelman-Kluit, 1972) which are overlain by siliceous banded tuffs (Unit 8, Tempelman-Kluit, 1972).

Current Work and Results:

Soil sampling was carried out in 1974 on the HAL, HALO and west half of the DANA claims in addition to I.P., magnetic and limited electromagnetic (Turam) surveys. Three holes were diamond drilled for a total of 1,634 feet. Low grade disseminated copper, lead and zinc sulphides were reported in all three holes.

Swim Lakes

SWIM LAKES "A"  
Kerr Addison Mines Limited  
P.O. Box 91, Commerce Court West  
Toronto, Ontario  
M5L 1C7  
and  
AEX Minerals Corporation  
330 - 355 Burrard Street  
Vancouver, British Columbia

Lead, Zinc, Silver  
105 K 3  
(62°13'N, 133°02'W)

Reference: Findlay (1969a, p.47); Tempelman-Kluit (1972).

Claims: SWIM 1-72

Location and Access:

The property is located roughly six miles southeast of the original Vangorda Creek property and lies 20 miles east of Faro. Access is via the Vangorda-Swim Lakes road.

History:

The original SWIM LAKES "A" group of claims was staked in 1963 by Kerr Addison following an airborne magnetic survey carried out by the company and additional claims were added in 1965. Extensive drilling carried out on the property in 1965 and 1966 outlined a massive sulphide zone containing about 5,000,000 tons of ore averaging 9.5 per cent combined lead-zinc and 1.5 ounces per ton silver with minor copper and gold values (Northern Miner, March 9 1967).

Description:

The property is underlain by grey phyllite and slaty phyllite of probable Cambrian age (Unit 3, Tempelman-Kluit, 1972). The rocks are highly foliated with a northwest strike and a gentle northeast dip.

The Swim deposit is discontinuous, roughly tabular and elongate, and it occurs in a quartzose gangue enclosed in phyllitic rocks, at a facies change from sericitic phyllite to graphitic phyllite. The sulphide mass is 1,500 feet long, nearly 500 feet wide and averages 70 feet in thickness. It trends northwest and dips northeast at 25 degrees.

Galena and sphalerite are the main ore minerals and are commonly associated with pyrite, pyrrhotite, marcasite and chalcopyrite. Arsenopyrite, magnetite and tetrahedrite have also been noted (Tempelman-Kluit, 1972).

Current Work and Results:

In 1974, a Turam E.M. survey and a gravity survey were carried out over a part of the property.

CIVI  
Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

105 K 2  
(62°13'N, 132°56'W)

Reference: Tempelman-Kluit (1972).

Claims: CIVI 1-11

Location and Access:

The claims are situated 12 miles east of Faro. Access in 1974 was by helicopter from Ross River, 22 miles to the southeast.

History:

The claims were staked on behalf of Vestor Explorations Limited and Cream Silver Mines Limited in the summer of 1974, at which time geological mapping and reconnaissance soil sampling were carried out. Cream Silver subsequently acquired full ownership of the property.

Description:

Immediately south of the CIVI claims are outcrops of quartz-mica schist, phyllite and graphitic schist, with lenses of metatuff and green banded chert. This sequence dips north at 15° to 20° beneath the CIVI group and is considered to be the same sequence as the Cambrian-Ordovician phyllites which host the zinc-lead ore deposits of the area (Unit 3, Tempelman-Kluit, 1972).

Current Work and Results:

In 1974, geological mapping and soil sampling were conducted over a part of the claims.

The soil sampling failed to outline any significant zinc or lead anomalies.

Rusty-weathering, quartz-sericite schist with altered iron sulphides and buff-coloured, altered phyllite were observed as float near the centre of the claim group.

#### Magundy River

RIDGE  
Teck Mining Corporation Limited  
700 - 1177 West Hastings Street  
Vancouver, British Columbia  
V6E 2K5  
and  
Silver Standard Mines Limited  
904 - 1199 West Hastings Street  
Vancouver, British Columbia

105 K 3  
(62°10'N, 133°23'W)

Reference: Tempelman-Kluit (1972).

Claims: RIDGE 1-40



Location and Access:

The claims lie along a roughly northwest-trending ridge five miles south of Faro. The property can be easily reached by foot from the Robert Campbell Highway which runs along the northeast side of the ridge.

History:

The RIDGE claims were staked in July 1974. No previous work in the area has been reported.

Description:

The property is underlain by chlorite-muscovite-quartz phyllite of Cambrian (?) to Ordovician (?) age (Unit 3, Tempelman-Kluit, 1972) which is intruded to the northeast by Cretaceous granodiorite (Unit 11, op.cit.). Garnet-diopside-quartz skarn and staurolite-garnet-biotite-muscovite schist (Unit 2, op.cit.) occur at the contact of the phyllite and granodiorite. No mineral showings have been reported.

Current Work and Results:

Geological mapping, soil sampling and a VLF-EM survey were carried out on the property in 1974.

Tenas Creek

CHAP, WOP  
Anvil Range Syndicate  
c/o 1761 Drummond Drive  
Vancouver, British Columbia

Copper  
105 K 1  
(62°04'N, 132°16'W)

Reference: Roddick and Green (1961a).

Claims: CHAP 1-52; WOP 1-66

Location and Access:

The claims are on Tenas Creek on the north side of the Canol Road, roughly six miles north of Ross River.

History:

The claims were staked in the summer of 1974 for Anvil Range Syndicate, a consortium consisting of Dupont Explorations of Canada Limited and Teck Corporation Limited. A regional airborne electromagnetic and magnetic survey had been carried out in the area in 1973.

Description:

The area is underlain by quartz-sericite schist, chlorite schist and phyllite (Unit 7, Roddick and Green, 1961a) which is overlain by altered andesite and basalt flows (Unit 8, op.cit.).

Current Work and Results:

Work carried out in 1974 included geochemical soil and silt sampling, I.P., magnetic and gravity surveys. Two holes totalling 800 feet were drilled

on the WOP claims and encountered disseminated pyrrhotite with minor chalcopyrite in schist and phyllite. Minor amounts of scheelite were also found in quartz veins and stringers parallel to the foliation of the host rocks.

ARO  
Anvil Range Syndicate  
c/o 1761 Drummond Drive  
Vancouver, British Columbia

Copper  
105 K 1  
(62°01'N, 132°08'W)

Reference: Roddick and Green (1961a).

Claims: ARO 1-32

Location and Access:

The claims are located on the south side of the Ross River, roughly five miles northeast of the town of Ross River.

History:

The ARO claims were staked in the summer of 1974 for the Anvil Range Syndicate on the basis of airborne electromagnetic and magnetic surveys carried out in 1973. The Anvil Range Syndicate is composed of Dupont Explorations of Canada Limited and Teck Corporation Limited.

Description:

The area is underlain by schist and phyllite (Unit 7, Roddick and Green, 1961a) which is overlain in turn by altered andesitic and basaltic flows (Unit 8, op.cit.). North of the property these rocks are intruded by Cretaceous (?) granodiorite and quartz monzonite (Unit 11, op.cit.). A vein of massive pyrrhotite up to 18 inches wide cutting phyllite in an exposure in a small creek was traced in outcrop and float for several hundred feet. Minor chalcopyrite was associated with the pyrrhotite. A vein containing barite, arsenopyrite and pyrite was also noted.

Current Work and Results:

Work carried out on the property in 1974 included geochemical soil and silt sampling, an I.P. and magnetic surveys.

UPPER WHITE RIVER AREA

Canyon City

WHITE RIVER COPPER  
Silver City Mines Limited  
580 Howe Street  
Vancouver, British Columbia

Copper  
115 F 15  
(61°47'N, 140°47'W)

References: Muller (1967); Findlay (1967, pp.51-52; 1969a, pp.68-70; 1969b, pp.40-41); Craig and Laporte (1972, pp.98-100); Sinclair and Gilbert (1975, pp.62-63).

Claims: MARK 1-4, 17-26, 61-78; NUK 8, 9, 11-13, 18-20, 22-24, 30, 32, 34, 37, 38; GOLDEN HORN 1-4; SLAGGARD 1, 2; HANNA 49-52; total of 58 claims and fractions.

Location and Access:

The property is on the east side of the Upper White River about 18 miles south of Mile 1168 on the Alaska Highway. Access in 1974 was by float plane to Rifle Lake from Whitehorse, or by helicopter. The property is also connected by a 20-mile winter tote road from the Alaska Highway.

History:

Native copper has been known in the area since the turn of the century and was first staked in 1905. Early workings consisted of three short adits which resulted in the discovery of several large slabs of copper. In 1967, Silver City Mines Limited made a new discovery during bulldozer trenching near the old workings. Silver City Mines Limited and Central Del Rio Oils Limited formed the company United Pemetex Limited which conducted magnetic and I.P. surveys and 2,600 feet of diamond drilling in 1968. Central Del Rio Oils Limited terminated its option agreement at this point and sole ownership reverted to Silver City Mines Limited.

Silver City completed 10,000 feet of diamond drilling in 1969 and conducted additional I.P. surveys. In 1970, the property was explored by 1,124 feet of underground workings on the 2,900 foot level and by 2,900 feet of underground drilling in 1972. A second adit collared at the 2,800 foot level was driven 407 feet in 1973.

Description:

The property is underlain primarily by volcanic and sedimentary rocks of the Permian and (?) earlier Cache Creek Group (Unit 10 and 11, Muller, 1967) and the Triassic Mush Lake Group (Unit 13, op.cit.). To the east, the area is cut by the Generc-Tchawsahmon fault, a major, west-dipping thrust fault which forms a prominent scarp on Slaggard Ridge. Another fault, trending slightly west of north along the White River, appears to separate Mush Lake volcanics on the east bank from Cache Creek strata on the west.

Mineralization occurs primarily in fractured, dark green, locally amygdaloidal Mush Lake basalt and andesite as irregular stringers and lenses of native copper and chalcocite with minor bornite. Occasional large masses of native copper have been encountered in the underground workings but the distribution of copper in general, is erratic.

Current Work and Results:

In 1974, underground development on the 2,800 foot level continued for an additional 637 feet. The downward extension of the high-grade zone from the 2,900 foot level was outlined, but copper values were generally lower than anticipated.

NISLING RANGE AREA

Dwarf Birch Creek

DU, BIR, NIS  
Lakewood Resources Limited  
and  
Menika Mining Limited  
2245 West 13th Avenue  
Vancouver, British Columbia

115 G 16  
(61°56'N, 138°09'W)

Reference: Muller (1967).

Claims: DU 1-6; BIR 1-8; NIS 1-8

Location and Access:

The claims are situated at the confluence of Dwarf Birch Creek with the Nisling River, approximately 30 miles southwest of Carmacks. Access in 1974 was by helicopter from Carmacks.

History:

The claims were staked in August 1973.

Description:

The property is underlain by schist and gneiss of the Yukon Complex (Unit 1a, Muller, 1967) which is intruded on the southeastern half of the property by Nisling Range granodiorite of Mesozoic and (?) early Tertiary age (Unit 6a, op.cit.). Rhyolite dykes cut both of the above units. No mineral showings have been reported.

Current Work and Results:

A combined airborne magnetic and electromagnetic survey carried out on the property in 1974, outlined several electromagnetic anomalies, two of which were coincident with magnetic lows and one with a magnetic high.

DEZADEASH AREA

Tatshenshini River

MOHAWK, SKY, STE  
Skyline Explorations Limited  
609 - 850 West Hastings Street  
Vancouver, British Columbia

Silver, Lead, Zinc  
115 A 3  
(60°07'N, 137°08'W)

Reference: Kindle (1953).

Claims: MOHAWK 1-8; SKY 1-16; STE 97-152

Location and Access:

The claims lie roughly three miles due west of Dalton Post from which they can be reached by a six-mile, four-wheel drive tote road. Dalton Post is easily accessible from Mile 105 of the Haines Road. The main showings occur at elevations of 3,100 to 3,500 feet.

History:

High-grade silver-bearing galena float was discovered in the early 1960's and a bedrock source subsequently located. Bulldozer trenching was carried out in 1969 and about ten to 15 tons of hand-picked ore was reportedly shipped at that time.

The STE claims are part of the Jackpot Copper Mines Limited property and were staked in 1967 and 1968. The MOHAWK and SKY groups were staked in 1974.

Description:

The central and northeastern part of the property is underlain by a north-northwesterly trending belt of volcanics belonging to the Mush Lake Group of Triassic age (Unit 3, Kindle, 1953). These rocks range from rhyolite and porphyritic dacite to andesite to basalt with minor amounts of argillaceous sediment. On the southwest part of the property, the Mush Lake volcanics are intruded by granodiorite to hornblende diorite of the Cretaceous Coast Intrusions (Unit 7, Kindle, 1953). The volcanic-intrusive contact trends north-northwest on the property and appears to be gradational.

Silver-bearing lead and zinc sulphides occur in narrow veins on both sides of and occasionally within, a sinuous hornblende-feldspar porphyry dyke which is intrusive into hornblende diorite. The dyke strikes roughly north-northwest, dipping steeply to the southwest at 65° to 75° and is up to 70 feet wide. The veins consist of lenses of massive sulphides up to 12 inches wide, within clay alteration zones up to six feet wide overall. The massive sulphides consist mainly of silver-rich galena, sphalerite and minor chalcopyrite with stibnite and jamesonite also reported.

Current Work and Results:

Three short holes were drilled by Jackpot Copper early in 1974. The holes reportedly failed to intersect any vein mineralization and may have been drilled too far east in the footwall of the veins.

Later in the season, Skyline Explorations carried out a program of bulldozer and hand trenching, preliminary geological mapping and geochemical and geophysical surveys.



A resampling in 1974 of four old trenches gave the following assay results:

<u>Trench No.</u>	<u>Width (Ft.)</u>	<u>Ag (oz/ton)</u>	<u>Pb (%)</u>	<u>Zn (%)</u>
1.	6	14.44	0.49	0.56
2.	5	2.88	0.05	0.17
3.	5	20.30	0.78	0.28
4.	3.4	196.60	26.8	1.03

Two bulldozer trenches were cut across one of the main showings. One of these was 22 feet deep and exposed a lens of sulphides which assayed as follows:

<u>Depth (Ft.)</u>	<u>Width (in.)</u>	<u>Ag (oz/ton)</u>	<u>Pb (%)</u>	<u>Zn (%)</u>
5	8	136.8	10.95	6.12
6	10	124.8	2.93	2.46
8	12	281.1	12.77	5.64
10	8	180.8	5.12	5.76
15	10	44.9	0.38	0.34
20	5	88.6	12.0	2.40
22	6	122.3	4.35	3.66

The second trench cut a three-foot zone of alteration but no sulphides. A third, shallow trench was cut north of the previous two and exposed a narrow lens of sulphides which assayed 187.7 ounces per ton silver and 18.89 per cent lead.

Detailed soil sampling was carried out in the area of the main showings and outlined a silver-lead anomaly roughly 100 feet east of the showings. A highly anomalous silver-lead spot high was reported north of the main showings. A number of rock geochemical samples were also taken and showed significantly higher than background values for silver, lead and zinc in the alteration zones of the veins.

An electromagnetic survey was carried out in the main showing area using a Crone Model CEM instrument. The strongest response occurred in the same area as the silver-lead soil anomaly east of the showings.

For further work on the property, a company consultant recommended detailed surface exploration to trace the extent of the vein followed up with bulldozer trenching and diamond drilling based on the results of the foregoing.

## WHITEHORSE AREA

### Whitehorse Copper Belt

WHITEHORSE COPPER MINES LIMITED  
P.O. Box 4280  
Whitehorse, Yukon Territory

Copper, Silver, Gold  
105 D 10, 11  
(60°33'N to 60°45'N,  
134°53'W to 135°10'W)

References: Kindle (1964); Green (1965, pp.40-41; 1966, pp.50-51);  
Green and Godwin (1964, pp.33-39); Findlay (1967, pp.41-43; 1969,  
pp.49-54); Hilker (1967); Craig and Laporte (1972, pp.110-111);  
Sinclair and Gilbert (1975, pp.74-76).

Claims: 682 claims in the Whitehorse Copper Belt

#### Location and Access:

The claims lie in a north to northwest-trending belt up to four miles wide and 20 miles long, west of the City of Whitehorse. Access to the property is from a number of points along the Alaska Highway. Concentrates are shipped by rail to Skagway.

#### History:

Copper occurrences in the Whitehorse area were first discovered and staked in the period 1898 to 1899 by miners enroute to the Klondike gold fields. Some hand-picked ore was shipped from 1900 to 1909 and some development and production took place from 1915 to 1920, during a period of high copper prices. Richmond Yukon Company Limited carried out some diamond drilling in 1927 and Noranda Mines Limited did some drilling in 1947 and 1948.

Imperial Mines and Metals Limited acquired claims in the Copper Belt in 1955 and commenced drilling on the Best Chance prospect in 1956. Renamed New Imperial Mines in 1957, the company re-commenced drilling in 1963 and by 1964 had outlined 4.6 million tons of ore grading 1.17 per cent copper with minor gold and silver values. Starting in 1966, there has been production from six open pits; Little Chief, Arctic Chief East and West, Black Cub, South Keewenaw and War Eagle.

Exploration during this period included drilling beneath the Little Chief and Middle Chief open pits which outlined roughly 2.7 million tons of 2.38 per cent copper.

In June 1971, production was suspended due to low metal prices and rising mining costs. Production was resumed in December 1972 from underground mining of the Little Chief ore body. The name of the company was changed to Whitehorse Copper Mines Limited in September 1971.

#### Description:

The copper occurrences of the Whitehorse Copper Belt are typically irregular patches and lenses in contact metamorphic skarns developed in Triassic Lewes River limestone (Unit 3c, Wheeler, 1961) adjacent to granodiorite of the Coast Range Intrusions (Unit 8, Wheeler, 1961). The skarns consist of varying amounts of diopside, epidote, tremolite-actinolite, garnet, serpentinite, magnetite and/or hematite, and rarely, asbestos. Chalcopyrite and bornite with minor chalcocite and native copper are the main ore minerals. Valleriite is locally abundant but because of its physical properties recovery is poor.

### Current Work and Results:

In 1974, a total of 631,405 tons of ore was produced from the Little Chief ore body at a daily rate of 1,759 tons and a grade of 1.76 per cent copper.

Surface exploration on properties in the Whitehorse Copper Belt included geological mapping on the VERONA claim, magnetic and induced polarization surveys on the JIM claims and diamond drilling on the WE and JIM claims. Two holes totalling 837 feet were drilled on the WE claims and eight holes totalling 4,119 feet were drilled on the JIM claims. No mineralized zones of economic significance were encountered.

The following is a summary of operations for 1972, 1973 and 1974:

	1974	1973	1972
Tons milled	626,541	700,054	10,707
Rate (tons/day)	1,745	1,919	-----
Grade (%Cu)	1.84	1.83	1.92
Reserves (tons)	3,567,980	3,182,388	3,216,703

GROUSE, BOY, WOLF, LUNAR, APEX, PANTHER  
Whitehorse Copper Mines Limited  
P.O. Box 4280  
Whitehorse, Yukon Territory

Copper  
105 D 11  
(60°41'N, 135°22'W)

Reference: Wheeler (1961).

Claims: GROUSE 1-16; ROY 1-8; WOLF 1-6; LUNAR 1-8; APEX 17-18; 23-24;  
PANTHER 1

### Location and Access:

The property is situated on a steep, south-facing slope north of Jackson Creek roughly two miles west of Franklin Lake and 11 miles west of Whitehorse. The claims can be reached by four-wheel drive vehicles in dry weather from the Fish Lake-Jackson Creek road.

### History:

The copper showings were discovered and staked in 1969 by S. Takacs and E. Kreft who have carried out hand trenching and blasting and some bulldozer stripping on the property intermittently since then. In 1972, the property was optioned by New Jersey Zinc Corporation who drilled six diamond-drill holes totalling 1,500 feet. Three zones over a total of 31 feet were intersected by this drilling in which the best assay was 0.26 per cent copper. In 1974, the property was optioned by Whitehorse Copper Mines Limited.

### Description:

The property lies along a contact between Cretaceous granitic rocks of the Coast Range Intrusions (Unit 8, Wheeler, 1961) to the southwest and upper

Triassic Lewes River limestone (Unit 36, Wheeler, 1961) to the northeast. The granitic rocks vary from bleached and chloritized hornblende granite to altered quartz monzonite and porphyritic diorite. The limestone varies from coarse, crystalline marble to black, locally stylolitic limestone. The contact is irregular and is cut by west-trending faults.

The chalcopyrite-bearing skarn developed at the contact consists of coarse-grained actinolite-magnetite and diopside-magnetite skarn with minor chlorite, serpentinite and epidote developed locally. Pyrite, pyrrhotite and scheelite are also present.

Several north-trending dykes of andesite up to ten feet wide, cut the skarn zone and, in places contain disseminated pyrite. Malachite is prominent in the showings and within limonite-cemented rubble below the showings.

#### Current Work and Results:

Geological mapping, soil sampling and limited bulldozer trenching were carried out in 1974. Some anomalous copper values were obtained by the soil sampling and the company intends to carry out a ground magnetic survey and more detailed mapping in 1975.

KING LAKE PROPERTY  
United Keno Hill Mines Limited  
405 Main Street  
Whitehorse, Yukon Territory

Copper, Molybdenum  
105 D 14  
(60°49'N, 135°28'W)

Reference: Wheeler (1961).

Claims: KING 1-8; LAKE 1-54; K-L 1, 2

#### Location and Access:

The property is centered about a small lake, referred to locally as King Lake, which is situated 15 miles west-northwest of Whitehorse and roughly two miles southwest of the Alaska Highway. The claims are reached by a three-mile tote road which leaves the Alaska Highway at Mile 934.

#### History:

The KING and LAKE claims were staked in May 1974 to cover copper showings discovered by R. Suits and his brothers. Later in 1974, the claims were optioned by United Keno Hill Mines Limited.

#### Description:

The regional mapping indicates the area is underlain mainly by greywacke, siltstone, argillite, conglomerate and tuffaceous equivalents of the Lewes River Group of Upper Triassic age (Unit 3a, Wheeler, 1961) and possibly some sediments of Jurassic age (Unit 3aa, Wheeler, 1961). The strike of the sediments varies but is generally westerly with dips to the north. These rocks are intruded by granitic rocks of the Cretaceous Coast Intrusions (Unit 8, Wheeler, 1961) which have been noted in the vicinity of King Lake.

The showings consist mainly of chalcopyrite associated with pyrite which occur as thin fracture fillings and disseminations in quartz monzonite. Molybdenite has also been observed in some of the showings.

Current Work and Results:

During the summer of 1974, a number of hand pits were put in on showings around King Lake. Grab samples from the showings assayed as high as 0.6 per cent copper, 0.2 per cent molybdenum and 0.33 per cent tungsten oxide.

Primrose Mountain

SHEEP	Gold, Silver
Welcome North Mines Limited	105 D 5
8 - 1161 Melville Street	(60°21'N, 135°51'W)
Vancouver, British Columbia	
V6E 2X7	

Reference: Wheeler (1961).

Claims: SHEEP 1-2

Location and Access:

The claims are situated roughly one mile north of Rose Lake and 38 miles southwest of Whitehorse.

History:

The SHEEP claims were staked in September, 1973.

Description:

The area is underlain predominantly by granodiorite of the Coast Range Intrusions (Unit 8, Wheeler, 1961). A quartz vein described by the company as up to 30 feet wide and exposed at a number of locations over a 2,000-foot strike length is reported to occur within pyritic rhyolite and dacite porphyry of unknown age.

Current Work and Results:

Three grab samples taken from the vein gave the following assays:

<u>Sample</u>	<u>Silver (oz/ton)</u>	<u>Gold (oz/ton)</u>	<u>Pb (%)</u>
1.	5.85	0.11	-
2.	32.0	0.15	-
3.	34.0	0.45	-
Bulk	15.43	0.25	11.9



## WHEATON RIVER AREA

### Skukum Creek

WH	Gold, Silver, Antimony
El Paso Mining and Milling Company Limited	105 D 3
500 - 885 Dunsmuir Street	(60°10'N, 135°24'W)
Vancouver, British Columbia	
V6C 1N5	

References: Cockfield (1923, pp.7-8); Cockfield and Bell (1926, p.44; 1944, p.16); Bostock (1938, pp.12-13); Wheeler (1961); Green (1966, pp.52-55).

Claims: WH 1-8

#### Location and Access:

The WH claims are situated between Skukum and Berney Creeks on the east ridge of Mount Reid at elevations ranging from 3,000 to 6,000 feet in an area of rugged terrain. Access in 1974 was by helicopter from Whitehorse, 41 miles to the northeast.

#### History:

Gold-silver veins were first discovered on the property in the early 1920's and have been explored intermittently since then. The most recent work was by Yukon Antimony Corporation Limited who built a road to the property in 1965 and did some bulldozer trenching. In June 1973, the property was restaked as the WH claims for El Paso Mining and Milling Company Limited.

#### Description:

The area is underlain primarily by granitic rocks of the Coast Intrusions of Cretaceous age (Unit 8, Wheeler, 1961) which range in composition from diorite to quartz monzonite within the claim area. An area in the centre of the claim block is underlain by fine-grained, massive andesite which appears to be older than the Coast Intrusions. To the west, the granitic rocks are capped by younger, andesitic rocks of the Skukum Group of Tertiary age or earlier (Unit 10, Wheeler, 1961).

The main mineralized zone on the property is a fault striking nearly west and dipping 50° to 60° north. The zone varies from 1.5 to eight feet wide and consists of calcite with very little quartz in rusty-weathering, sheared and brecciated granodiorite and locally, older andesite. Pyrite with galena and stibnite are the principal sulphides reported.

#### Current Work and Results:

In 1974, work on the property consisted of geological mapping and soil sampling. The soil sampling outlined a number of coincident silver, gold and antimony anomalies. Representative samples of vein material gave the following assays:

<u>Width (ft)</u>	<u>Silver (oz/ton)</u>	<u>Gold (oz/ton)</u>	<u>Antimony (%)</u>
1.5	0.20	tr.	0.01
3	1.01	0.03	0.01
4	3.76	0.10	-
5	36.4	0.38	1.02
10	0.24	0.003	0.01
4	1.17	0.01	-

Becker Creek

POP  
Belmoral Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

Antimony  
105 D 3  
(60°11'N, 135°13'W)

References: Cairnes (1910, p.48; 1916, p.45); Bostock (1941, p.35);  
Wheeler (1961, p.132); Green (1965, p.42; 1966, pp.52-55); Findlay  
(1967, p.43; 1969a, p.57).

Claims: POP 1-14

Location and Access:

The property is situated on the northeast side of Carbon Hill at elevations above 5,000 feet. A 25-mile gravel road via Annie Lake connects the property with the Carcross Road although several of the bridges across the Wheaton River are currently washed out and need rebuilding. Access in 1974 was by helicopter from Whitehorse, 38 miles to the north.

History:

Antimony and gold-quartz showings were first discovered in 1893 by two prospectors from Juneau who subsequently died without disclosing their location. The occurrences were rediscovered in 1906 and actively explored until about 1915. Since then there has been intermittent work on the property, commonly known as the Becker-Cochran property, the latest in the period from 1964 to 1967 when Yukon Antimony Corporation Limited carried out a program of geological mapping, trenching, diamond drilling and the driving of three adits along the mineralized zone. By 1973, the claims had lapsed and were restaked by E. Bergvinson.

Description:

The property is underlain primarily by granitic rocks of the Coast Intrusions (Unit 8, Wheeler, 1961). The antimony showing occurs in a strong shear zone, trending about 130° and dipping 75° southwest in a small body of altered acidic volcanic rocks (Unit A, op.cit.) within the granitic rocks. The shear zone averages about five feet wide and is filled with clayey gouge. Fine-grained stibnite, pyrite and massive knots of coarse stibnite crystals occur with quartz gangue as irregular lenses and patches within the shear.

### Current Work and Results:

In 1974, the property was examined briefly by a consultant for Belmoral Mines Limited and an estimate of the reserves was recalculated from available figures. His study suggested that probable and possible reserves of approximately 140,000 tons of four per cent antimony were present and recommended that the adits be resampled.

## BIG SALMON RANGE AREA

### Loon Lakes

LYNX  
Loon Lake Syndicate  
c/o 7052 Sierra Drive  
Burnaby, British Columbia

Copper, Gold  
105 E 1  
(61°12'N, 134°11'W)

References: Bostock and Lees (1938); Craig and Laporte (1972, pp.119-120).

Claims: LYNX 1-16

### Location and Access:

The claims are immediately northwest of Upper Loon Lake, approximately 45 miles northeast of Whitehorse. Access in 1974 was by fixed wing aircraft from Whitehorse to Loon Lake.

### History:

Copper showings were known prior to 1900 (Bostock and Lees, 1938, p.28) and two adits, one 270 feet long and the other 50 feet long, were driven in the early 1900's. The property was restaked as the BEAVER and MINK claims in 1969 (Craig and Laporte, 1972, pp.119-120) at which time soil sampling indicated two copper anomalies in northwest-trending zones. These claims lapsed and were subsequently restaked as the LYNX claims in December 1972 and May 1974.

### Description:

The LYNX group is underlain by sericitic-chlorite schists and cherty quartzite, generally dipping 55° to 75° to the southwest or northwest, depending on the strike. Mineral occurrences consist of disseminated chalcopyrite and minor pyrite in quartzite, crudely banded, patchy chalcopyrite and pyrite in schist, and specks of chalcopyrite in quartz veinlets.

### Current Work and Results:

Soil sampling was conducted in 1974 and samples analyzed for copper, lead, zinc and molybdenum. Roughly ten weak copper anomalies were outlined on the schist-quartzite contact, and they corresponded with areas of maximum chargeability outlined by a previous I.P. survey. Eight other copper anomalies were also outlined. No lead, zinc or molybdenum anomalies were found.

Boswell River

AG	Silver, Lead
El Paso Mining and Milling Company Limited	105 F 4
500 - 885 Dunsmuir Street	(61°01'N, 133°40'W)
Vancouver, British Columbia	

References: Lees (1936); Wheeler et al (1960a).

Claims: AG 1-6

Location and Access:

The claims are situated near the headwaters of the Boswell River, roughly 48 miles northeast of Whitehorse. Access in 1974 was by helicopter from Whitehorse.

History:

Occurrences of silver-bearing galena in quartz veins have been known in the area for many years. When visited by Lees (1936, pp.23-24) in 1935 work on the property consisted of surface trenching and a 120-foot adit (Lees, 1936). Since then, the property has been restaked a number of times, most recently in the period 1966-1968, when Boswell River Mines Limited carried out geochemical and geophysical surveys and did some hand trenching. In July 1973, the property was restaked as the AG claims for El Paso Mining and Milling Company Limited.

Description:

The property is underlain mainly by metamorphic rocks consisting of light brown phyllite, including some well bedded, dark green volcanic tuff (Unit A, Wheeler et al, 1960a). The foliation trends roughly northwest and dips to the southwest. Within the phyllite are some lens-shaped bodies of ultrabasic rocks striking roughly east-west (Unit D, op.cit.). To the northeast, the metamorphic rocks are intruded by coarse-grained granite of Jurassic and/or Cretaceous age (Unit 9, op.cit.).

Silver-lead showings on the property consist of silver-bearing galena in quartz veins cutting the phyllite.

Current Work and Results:

In 1974, El Paso carried out geological mapping and soil sampling on the property. The soil sampling outlined a number of coincident lead and silver anomalies, which were followed up by rock sampling. Mineral showings are confined to quartz veins, which compose about ten per cent of the rock exposures in an area 450 feet wide by 2,100 feet long. Individual veins vary from one to 15 feet wide. Sixty-two rock samples were taken in trenches and from rock outcrops. Assays ranged from 0.01 to 4.0 per cent lead, averaging 0.8 per cent and from 0.01 to 12.0 ounces per ton silver, averaging 2.0 ounces per ton.

WATSON LAKE MINING DISTRICT

CASSIAR MOUNTAINS AREA

Irvine Lake

ANGIE  
Hudson Bay Exploration and Development  
Company Limited  
P.O. Box 4007  
Whitehorse, Yukon Territory

Silver, Lead, Zinc  
105 B 11  
(60°38'N, 131°11'W)

Reference: Poole et al (1960).

Claims: ANGIE 1-46

Location and Access:

The property lies four miles northeast of Irvine Lake. Access in 1974 was by fixed wing from Watson Lake to Irvine Lake, a distance of approximately 85 miles, and thence by helicopter.

History:

The claims were staked in July 1974.

Description:

The ANGIE claims were staked to cover magnetite and diopside skarn developed in muscovite and chlorite schist and gneiss of Cambrian and (?) earlier age (Unit 1, Poole et al, 1960) close to the contact of Jurassic and/or Cretaceous granodiorite (Unit 15e, op.cit.) lying to the south. Silver, lead and zinc minerals are reported associated with the skarn.

Current Work and Results:

In 1974, Hudson Bay carried out geological mapping, soil sampling and hand trenching and drilled three diamond-drill holes totalling 1,485 feet.

FRANCES LAKE AREA

ELC, SUZANNE  
Dual Resources Limited

Lead, Zinc, Silver  
105 H 2, 7  
(61°15'N, 128°40'W)

Reference: Roots et al (1966).

Claims: ELC 1-22; SUZANNE 1-16

Location and Access:

The claims form two separate blocks about five miles apart, and are located about 12 miles west of Mile 47 on the Nahanni Range Road. Access is by helicopter from Watson Lake, 124 miles to the south.

History:

The SUZANNE and ELC claims were staked in March and June of 1974, respectively.



Description:

The area is underlain by metamorphic rocks of Proterozoic to Upper Paleozoic age (Units 2 and 14, Roots et al, 1966).

Current Work and Results:

Soil geochemical surveys and magnetometer surveys were carried out over both claim blocks. Soil samples were analyzed for lead, zinc, and silver. Several small geochemical anomalies and weak magnetic anomalies were detected.

Oscar Lake

BAILEY	Tungsten, Copper
Canada Tungsten Mining Corporation Limited	105 A 10, 15
80 Niobe Street	(60°47'N, 128°50'W)
North Vancouver, British Columbia	

References: Gabrielse (1966); Craig and Milner (1975, p.120).

Claims: BAILEY 1-88

Location and Access:

The BAILEY claims lie 50 miles north of Watson Lake, roughly eight miles south-southwest of Mount Murray. They are 14 miles east of the Campbell Highway and 12 miles south of the Nahanni Range Road. Access in 1974 was by helicopter from Watson Lake.

History:

The claims were staked in 1971 to cover a previously known showing (Gabrielse, 1966). Following the staking, a number of hand trenches were blasted and sampled. In 1974, the claims were acquired by Canada Tungsten Mining Corporation Limited.

Description:

The property is on the southeastern contact of a Cretaceous granodiorite (Unit 12, Gabrielse, 1966) which trends north through Mount Murray. Locally, skarn carrying pyrrhotite, chalcopyrite and scheelite, is developed where the granodiorite is in contact with limestone of Paleozoic age (Unit 7, op.cit.). Two skarn zones have been found on the BAILEY claims. The east-trending "A" zone varies from ten feet wide carrying 0.35 per cent tungsten trioxide over five-foot sections. One mile south of the "A" zone, the "B" zone contains 0.01 to 2.86 per cent tungsten trioxide over widths ranging from four to seven feet.

Current Work and Results:

In 1974, Canada Tungsten carried out a combined airborne magnetic and electromagnetic survey and conducted a program of diamond drilling.

LIARD PLATEAU AREA

Otter Lake

MEL, JEAN  
Granby Mining Corporation  
1700 - 1050 West Pender Street  
Vancouver, British Columbia

Lead, Zinc, Barite  
95 D 6  
(60°21'N, 127°25'W)

References: Gabrielse and Blusson (1969); Sinclair and Gilbert (1975, pp.82-83).

Claims: MEL 11-16; JEAN 1-21

Location and Access:

The property lies one and one-half miles south-southeast of Otter Lake and four miles east of the Coal River. Access is by fixed wing aircraft to Otter Lake from Watson Lake, 50 miles to the west-southwest, and then by helicopter. A 28-mile winter tote road connects the property with the Alaska Highway at Mile 590.

History:

The occurrence of barite with associated galena and sphalerite has apparently been known for some time. The original MEL claims were staked in 1967 and optioned to Newmont Mining Corporation who exposed sulphides at four locations along a strike length of 1,600 feet. Assays were on the order of 5.0 per cent combined lead-zinc over widths of 7.5 to 30.0 feet. The claims were subsequently acquired by Empire Metals Corporation Limited (now Granby Mining Corporation) in the fall of 1973. In 1973, Empire carried out a program of geological mapping and soil sampling which outlined several lead and zinc anomalies.

Description:

The property is underlain by Lower Paleozoic carbonates and argillaceous sediments which have been folded along a north-trending axis. On the western part of the property these rocks consist of a competent, massive, fine-grained, grey limestone (Unit 9, Gabrielse and Blusson, 1969). The east half of the property is underlain by argillaceous limestone and calcareous phyllite (Unit 8, Gabrielse and Blusson, 1969) which is separated from the massive carbonates on the west half of the property by a steeply dipping, north-trending normal fault. Sphalerite and galena associated with barite occur in an apparently bedded horizon or in a limestone bed replacement within the massive carbonate unit near the contact with the argillaceous limestone.

Current Work and Results:

In 1974, Granby carried out soil sampling on the mineralized zone and drilled eight holes totalling 1,799 feet. Seven of the eight holes were drilled along a 1,900-foot strike length on the zone and gave the following results (George Cross News Letter, 12 September 1974):

<u>Hole</u>	<u>Footage (ft.)</u>	<u>Interval (ft.)</u>	<u>Pb (%)</u>	<u>Zn (%)</u>
1.	115.5-145 121.5-136.3	29.5 14.8	2.15 3.95	5.28 7.51
2.	111-155.5	44.5	2.16	4.83
3.	202.5-233	30.5	poor recovery	
4.	121.5-155 137-153	33.5 16	1.05 2.05	5.86 7.17
5.	146-160.5 151-157.5	14.5 6.5	1.04 1.95	5.73 11.52
6.	187.5-194	6.5	1.64	2.57
8.	215-232.5 219-230.8	17.5 11.8	2.46 2.74	7.96 10.79

Quartz Lake

MCMILLAN  
Hyland Joint Venture  
c/o Archer, Cathro and Associates Limited  
685 Two Bentall Centre  
555 Burrard Street  
Vancouver, British Columbia

Lead, Zinc, Silver  
95 D 5, 12  
(60°31'N, 127°52'W)

References: Green (1966, pp.72-74); Gabrielse and Blusson (1969);  
Sinclair and Gilbert (1975, pp.83-84).

Claims: PORKER 1-56

Location and Access:

The PORKER claims are situated on the south side of Quartz Lake immediately adjacent to the east side of the McMillan property of Liard River Mining Company Limited. Access is by float plane to Quartz Lake from Watson Lake, 40 miles to the southwest.

History:

The property partially covers the old SN claims staked by Liard River Mining Company in 1954, on which four holes totalling roughly 1,200 feet were drilled. The PORKER claims were staked in July 1973 for the Hyland Joint Venture, which is composed of Marietta Resources International Limited, Mitsubishi Metal Corporation and L.T. and Harris Clay. Geological mapping and soil and silt sampling on the property in 1973 outlined a number of small lead anomalies and a large arsenic anomaly.

Description:

The property is underlain by a thick section of Hadrynian sedimentary rocks consisting of interbedded slate and feldspathic grit with interbedded limestone and conspicuous maroon and green weathering phyllites in the upper part of the sequence (Unit 1, Gabrielse and Blusson, 1969). The rocks strike generally to the northwest and dip northeast. Mineral showings on

the property consist of siderite-limonite gossans with disseminated pyrite and arsenopyrite in silicified quartzite and limonitic fault breccias in faults cutting silicified quartzite and phyllite. Galena and associated sulphosalt minerals have been identified in some of the surface showings. On the adjoining Liard River Mining Company property to the west, a mineralized zone containing one million tons of ore grading five per cent lead, ten per cent zinc and 1.8 ounces of silver was outlined at the base of a limestone conglomerate, where it has been replaced by siderite and ankerite together with sphalerite, galena and pyrite (Green, 1966, pp.72-74).

#### Current Work and Results:

About 40 line miles of gravity survey were completed in 1974 at a line spacing of 800 feet. Several anomalies were outlined east of the zone drilled in 1955.

### PELLY MOUNTAINS AREA

#### Seagull Creek

MM  
Anvil Mining Corporation Limited  
1550 Alberni Street  
Vancouver, British Columbia

Lead, Zinc  
105 F 7  
(61°27'N, 132°38'W)

References: Wheeler et al (1960a); Sinclair and Gilbert (1975, pp.84-85).

Claims: MM 1-76; JJ 1-81

#### Location and Access:

The claims are situated on Peak 6570 on the west side of Seagull Creek, 13 miles east of the Canol Road and 37 miles south of Ross River. The terrain is relatively rugged with elevations ranging from 4,000 feet to 6,500 feet. Access to the property in 1974 was by helicopter.

#### History:

The MM and JJ claims were staked in 1973 on ground that previously had been staked as the ARNOLD and ZINC claims. In 1973, Anvil Mining Corporation (now Cyprus Anvil Mining Corporation) conducted geological mapping, soil and silt sampling and a gravity survey and drilled two holes totalling 805 feet.

#### Description:

The property is underlain by Middle and Upper Cambrian (?) phyllite and mafic-rich schist (Unit 2, Wheeler et al, 1960a) which is intruded in the western edge of the claims by Jurassic and/or Cretaceous granitic rocks (Unit 9, op.cit.). The east side of the property is cut by a north-trending fault, east of which the underlying rocks are Lower Cambrian metasediments (Unit 1, op.cit.). Pyrrhotite, arsenopyrite and sphalerite are reported to occur in mafic-rich schist exposed in a cirque on the east side of Peak 6570.

#### Current Work and Results:

In 1974, Anvil carried out more geochemical surveys and drilled three holes. One of these holes intersected zinc and lead sulphides over a length of 20 feet.

Wolverine Lake

FETISH  
Finlayson Joint Venture  
c/o Archer, Cathro and Associates Limited  
685 Two Bentall Centre  
555 Burrard Street  
Vancouver 1, British Columbia

Copper, Lead, Zinc  
105 G 8  
(61°25'N, 130°07'W)

References: Wheeler et al (1960b); Sinclair and Gilbert (1975, pp.86-87).

Claims: FETISH 1-34

Location and Access:

The property lies roughly one mile east-southeast of the southeast end of Wolverine Lake, 85 miles east-southeast of Ross River. Access in 1974 was by helicopter.

History:

The FETISH 1-20 claims were staked in July 1973 for the Finlayson Joint Venture, a consortium composed of Marietta Resources International Limited, Standard Oil Company of British Columbia, Union Oil Company of Canada and L.T. and Harris Clay. The FETISH 11-34 claims were added in 1974. Field work in 1973 consisted of geological mapping and soil sampling which outlined a copper-lead-zinc anomaly.

Description:

The claims are underlain mainly by Cambrian quartz-biotite and quartz-chlorite schist and micaceous quartzite (Unit A, Wheeler et al, 1960b) which have a northwest-trending foliation. These rocks are bounded to the southwest by augen gneiss (Unit C, op.cit.) and to the northeast by weakly metamorphosed, green volcanic rocks of Mississippian or earlier age (Unit 6a, op.cit.). Stratiform copper, lead and zinc sulphides occur in quartz-chlorite schist immediately below a quartzite member containing magnetite-pyrite iron formation. The mineralized schist strikes roughly 140° and dips 40° to the northeast.

Current Work and Results:

In 1974, two holes totalling 705 feet were diamond drilled to test the bedrock source of the copper-lead-zinc anomaly. Both holes intersected thin bands of chalcopyrite and/or sphalerite lying along foliation planes of a talc-sericite-chlorite schist. Hole F1 intersected 13 feet which assayed 0.2 per cent copper and 0.26 per cent zinc within an overall section of 65 feet of lower grade mineralization. Hole F2, drilled 800 feet to the southeast of F1, encountered 15.5 feet which ran 0.24 per cent copper and 0.22 per cent zinc within a 41-foot mineralized section.

Additional soil sampling in 1974 did not indicate any anomalous areas on strike in either direction from the bedrock source.



Ings River

EAGLE  
Tintina Silver Mines Limited  
200 - 931 Yonge Street  
Toronto, Ontario  
M4W 2H7

Silver, Lead, Zinc  
105 G 3  
(61°08'N, 131°10'W)

References: Wheeler et al (1960b); Skinner (1962, pp.37-39); Green and Godwin (1963, pp.26-29).

Claims: EAGLE 1-58, 66, 73, 74, 77, 78, 81-85, 115-138

Location and Access:

The EAGLE claim group is situated in southern St. Cyr Mountains, four miles west of the Ings River and 70 miles south-southeast of Ross River. The terrain in the area of the property is rugged and the main showings occur in a north-trending cirque-valley at elevations of over 5,000 feet. Access to the property in 1974 was by fixed wing from Ross River to an airstrip five miles southwest of the property and then by helicopter to the property itself, or by helicopter directly from Ross River. A 110-mile winter road to the property from Mile 790 on the Alaska Highway was constructed in 1961.

History:

The EAGLE claims along with the RAM, EL and IT groups were originally staked in 1961 by Conwest Exploration Company Limited following the discovery of silver-lead-zinc showings by Nels Hals, a prospector working for Conwest. During August and September 1961, Conwest trenched, pack-sack drilled and sampled eight of nine showings discovered in the cirque area and discovered and prospected six other showings to the northwest. In December 1961, the property was acquired by Tintina Silver Mines Limited.

In February 1962, an adit was collared at about the 5,375 foot level and roughly 1,830 feet of underground development and 3,201 feet of underground diamond drilling in 22 holes were carried out. Additional work in 1962 included 625 feet of surface drilling in six holes, an electromagnetic survey and detailed geological mapping. Results of the 1962 work proved disappointing and no further work was undertaken until 1968, when a geochemical survey was carried out on the property. From then until 1974, the property was dormant.

Description:

Regional mapping shows the property to be underlain by Lower Cambrian limestone (Unit 1c, Wheeler et al, 1960b) and Middle to Upper Cambrian phyllite (Unit 2, op.cit.). On the northeast part of the property these rocks are intruded by Jurassic and/or Cretaceous granodiorite (Unit 9, op.cit.). At the contact of the granodiorite, the sediments have been altered to hornfels for distances up to two miles. Garnet-diopside-epidote skarn has been developed in limy sediments adjacent to the granodiorite contact.

Host rocks for the silver-lead-zinc showings on the property are Lower Cambrian sediments which have been separated into six separate units, consisting of lower argillite overlain successively by lower limestone, middle argillite, upper limestone, black argillite and argillaceous limestone. The lower argillite is a massive, brown to purplish-brown argillite with minor disseminated pyrrhoite. This unit is at least 300 feet thick but has been encountered

only in drilling and its total thickness is unknown. The lower limestone is commonly mottled or streaky in appearance and locally argillaceous. Log-shaped boudins of limestone within argillaceous limestone are indicative of the deformation within this unit. White rings and cylindrical bodies resemble fossils of Lower Cambrian age. Thickness of the unit varies from 25 feet to 250 feet. The middle argillite unit is a strongly foliated, grey- to brown-coloured rock rich in pyrrhotite, pyrite and locally arsenopyrite, and containing massive, siliceous bands up to three feet thick with a tuffaceous appearance. The middle argillite varies from 50 to 150 feet thick. The upper limestone is grey to light grey limestone with only minor argillite content. It has a mottled appearance due to the presence of secondary stringers and patches of calcite and, to a lesser extent, quartz. The upper limestone unit appears to be the most favourable host for the silver-lead-zinc occurrences. Its thickness is variable but averages 30 to 50 feet. The black argillite is a distinctive, black, carbonaceous, sulphide-rich argillite. It contains up to ten per cent pyrite and pyrrhotite and is rusty weathering in outcrop. The black argillite has been the locus of thrust faulting and its thickness and spatial distribution are quite irregular. The argillaceous limestone is a thick unit of bedded, strongly sheared and folded argillaceous limestone.

The structure is dominated by a northwest-plunging anticline which is complicated by minor drag folds and abundant small-scale thrust and cross faults.

The silver-lead-zinc occurrences on the EAGLE claims have been divided into four separate groups. The first, and most important to date, consists of massive to disseminated sphalerite, galena and freibergite emplaced within the upper limestone. These occurrences are best developed in the crests of small anticlinal folds and notably at, or close to, the contact of the overlying graphitic, black argillite. The second group consists of small pods of massive galena with freibergite with more widespread massive to disseminated sphalerite emplaced within the lower limestone. These occurrences are similar to those in the upper limestone but are less continuous and apparently less extensive. The third group is associated with thrust faults at the base of the argillaceous limestone and consists of pods and discontinuous lenses of massive galena, with minor sphalerite associated with secondary calcite and quartz veins. A fourth and less significant type of occurrence consists of minor chalcopyrite in quartz veins cutting mainly argillaceous limestone.

#### Current Work and Results:

Most of the work in 1974 consisted of diamond drilling, which totalled 10,322 feet of BQ core in 83 holes and 1,577 feet of EX core in 14 holes. In addition, geochemical rock and soil sampling and some hand trenching were carried out.

Much of the diamond drilling was carried out over an area designated 'A-grid' which covers the original Nos. 1, 2, 3 and 4 showings. The drilling indicates the showings are part of a single deposit in the upper limestone within a drag fold on the northeastern limb of the major anticlinal structure. In cross section the deposit has an irregular "Z" shape which is interpreted as a drag fold although the structure is complicated by associated faults. The deposit extends at least 300 feet along strike and is open at both ends. The thickness and grade of the deposit are variable.

Drilling on 'B-grid,' which includes the No. 8 showing, encountered mineralization in a thrust zone at the base of the argillaceous limestone.

Drilling on 'C-grid' was designed to test showing No. 9 at depth. This occurrence is of the sheared, thrust zone type and the drilling indicated very low grades and narrow widths for this deposit.

The Nos. 5, 6 and 7 showings which occur in the lower limestone were covered by 'D-grid' drilling. Although restricted to a single stratigraphic unit, the mineralization was found to be discontinuous and not necessarily parallel to stratigraphic contacts, suggesting a certain degree of structural control.

The 'E-grid' drilling was designed to test the sidehill zone showing discovered by prospecting early in 1974. Only minor amounts of sphalerite within argillaceous limestone were encountered in the drilling.

Trenching was carried out in the No. 10 showing area, as it occurs within a drag fold structure similar to that encountered on 'A-grid' and is possibly an extension of the 'A-grid' deposit. However, the mineralization exposed by the trenching consisted mainly of sphalerite with only a few local pods of galena and freibergite.

Geochemical rock sampling indicated strongly anomalous silver, lead and zinc values in all rock types, excepting intrusives, adjacent to known sulphide occurrences and nearly all anomalous samples could be explained by known occurrences. The soil sampling was conducted to test for extensions of the 'A-grid' deposit and silver, zinc and lead anomalies associated with upper limestone - black argillite contacts suggest an extension to the east. Soil geochemical results to the west are not conclusive.

A consultant for the company recommended a continued program of diamond drilling and surface exploration on the property.

JIM

Envoy Resources Limited  
333 - 885 Dunsmuir Street  
Vancouver, British Columbia

105 G 3  
(61°09'N, 131°06'W)

Reference: Wheeler et al (1960b).

Claims: JIM 1-24

Location and Access:

The JIM claims are situated roughly three miles west of the Ings River and 72 miles southwest of Ross River from which they can be reached by helicopter. The property lies at elevations ranging from slightly less than 4,000 feet to over 5,000 feet.

History:

The claims were staked in March 1974 adjacent to the EAGLE and NEW claim groups.

Description:

The property is underlain by Lower Cambrian sediments (Units 1 and 2, Wheeler et al, 1960b) which have been intruded to the west by a plug of Jurassic or Cretaceous granodiorite (Unit 19, op.cit.). Adjacent to the intrusion, the sediments have been metamorphosed into skarn and hornfels for

up to two miles from the contact. Sulphide showings on the adjacent EAGLE claims consist of sphalerite, galena, freibergite and minor amounts of pyrrhotite, chalcopyrite and pyrite, occurring mainly in the crests of minor anticlinal folds in Lower Cambrian limestone.

#### Current Work and Results:

Reconnaissance geological mapping in 1974 discovered argillite, argillaceous limestone and dolomite on the JIM claim group. Minor malachite occurrences were noted in argillaceous rocks.

Geochemical soil sampling for lead, zinc and silver showed a few spotty anomalous values although sampling was hindered by heavy bush conditions.

### SELWYN MOUNTAINS AREA

#### Summit Lake

HOWARDS PASS PROPERTY  
Canex Placer Limited  
800 - 1030 West Georgia Street  
Vancouver, British Columbia  
V6E 3A8

Lead, Zinc  
105 I 6, 11, 12  
(62°27'N, 129°11'W)

References: Green et al (1967); Blusson (1968); Gabrielse et al (1973);  
Craig and Milner (1975); Sinclair and Gilbert (1975, pp.89-90);  
Ludwigsen (1975).

Claims: DON, OP, R, X, Y, ANNIV: total of 324 claims and fractions

#### Location and Access:

The property lies in the Selwyn Mountains along the Yukon-Northwest Territories border, roughly 160 miles north of Watson Lake and 100 miles east-northeast of Ross River. Elevations on the property range from 5,000 to 6,000 feet. In 1974, an airstrip on the property was serviced by fixed wing aircraft from Watson Lake or Ross River. Heavy equipment is brought in to the property during the winter over a winter tote road which leaves the Nahanni Range Road at Mile 101.

#### History:

The area was first investigated by Canex Placer in 1968, at which time regional geochemical surveys were carried out. Detailed geochemical sampling was conducted in 1971 and further geochemical work and prospecting resulted in the discovery of high grade showings of galena and sphalerite in July 1972. Late that season, a bulldozer was brought in and a series of trenches were cut across the mineralized zone. Announcement of the discovery resulted in a major staking rush to the area which lasted into the spring of 1973.

In 1973, the company carried out a major program including geological mapping, soil sampling, a reconnaissance gravity survey, bulldozer trenching and 15,400 feet of diamond drilling in 26 holes.

#### Description:

The Howards Pass Property lies within the Selwyn Fold Belt and is underlain by Paleozoic sediments of the Selwyn Basin. The oldest unit in the



immediate area is an Upper Cambrian and (?) Ordovician limestone (Unit 7b, Green et al, 1967) which is irregularly banded and locally referred to as the "wavy-banded" limestone. This unit is thought to correlate with the Rabbitkettle Formation described by Gabrielse et al (1973) farther to the east. The "wavy-banded" limestone grades conformably through a transitional zone into the Road River Formation, a sequence of black, graphitic and graptolitic shales, locally calcareous or cherty (Unit 10, Green et al, 1967) and up to 1,000 feet thick. In the Cantung area, Blusson (1968) concluded that the contact of the Rabbitkettle and the Road River Formations is unconformable. However, in the Summit Lake area, according to Ludwigsen (1975), the contact is conformable and according to the graptolite fauna, sedimentation was essentially continuous throughout Ordovician time. The Road River Formation is overlain by over 3,000 feet of Ordovician to Devonian-Mississippian black clastics consisting of several successions of shale, sandstone and chert-pebble conglomerate.

Locally, the strata are tightly folded within a broad synclorium trending approximately west-northwest. Isoclinal and chevron folds are present and a pervasive cleavage has been developed in the shales.

Extremely fine-grained galena and sphalerite occur as thin laminae within a black, graphitic horizon in the Road River Formation, roughly 200 feet above the lower contact with the Rabbitkettle Formation. The mineralized zone in the shale is up to 100 feet thick but the highest grades of lead and zinc occur in siliceous beds in the shale which reportedly run as high as 40 per cent combined lead-zinc. The mineralized horizon is quite extensive as mineral showings have been found along a strike length of approximately 16 miles. In addition to galena and sphalerite, which may be too fine-grained to be visible, secondary lead-zinc minerals such as smithsonite, cerussite and especially hydrozincite may occur on the weathered surface of the showings and have been observed in many places in talus downslope from mineralized areas.

#### Current Work and Results:

In 1974, Canex Placer carried out a program on the property which included detailed mapping in local areas, bulldozer trenching and 5,162 feet of diamond drilling in 12 holes.

PAS  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Lead, Zinc  
105.16, 11  
(62°29'N, 129°14'W)

References: Green et al (1967); Sinclair and Gilbert (1975, pp.92-93).

Claims: PAS 1-15, 17-50

#### Location and Access:

The property is situated 110 miles east-northeast of Ross River along the Yukon-Northwest Territories border at an elevation of about 5,500 feet. Access in 1974 was by float plane to Summit Lake, 11 miles to the south-southwest, and then by helicopter, or by wheeled aircraft to an airstrip on the Canex Placer property to the southeast and thence by helicopter.



### History:

The PAS claims were staked in 1972 and 1973 following the discovery of lead-zinc by Canex Placer. In 1973, geological mapping and soil sampling outlined coincident lead, zinc and copper anomalies on a lead-and zinc-rich zone in black shale. A number of lead-zinc sulphide occurrences were discovered.

### Description:

The claims are underlain by a sequence of sediments which have been folded along east-northeast trending axes. At the base of the sequence is a thinly-bedded, buff-weathering, dolomitic limestone (Unit 7b, Green et al, 1967). This limestone grades upward through thinly-bedded, transitional dolomitic rock into black, graptolitic shale, locally graphitic and calcareous (Unit 10, op.cit.). The graptolitic shale is overlain by limy argillite and black shale (Unit 18b, op.cit.). Lead and zinc sulphides occur on the property in a siliceous, light grey horizon within the graptolitic shale unit. The sulphides are very fine-grained and occur in thin sulphide beds along cleavage planes.

### Current Work and Results:

In 1974, work on the PAS property consisted of detailed geological mapping and soil sampling, bulldozer trenching and 1,661 feet of diamond drilling in four holes. A zone of stratiform lead-zinc sulphides was outlined on which further work will be required before a complete evaluation can be made.

### ROSS

Cream Silver Mines Limited  
107 - 325 Howe Street  
Vancouver, British Columbia

105 I 12  
(62°29'N, 129°17'W)

References: Green et al (1967); Sinclair and Gilbert (1975, pp.102-103).

Claims: ROSS 1-49

### Location and Access:

The property is situated nine miles north of Summit Lake. Access in 1974 was by fixed wing aircraft to Summit Lake from Watson Lake or Ross River and thence by helicopter.

### History:

The claims were staked in the fall of 1972 following the discovery of lead-zinc by Canex Placer. Geological mapping and soil sampling were carried out on the property in 1973 and several coincident lead-zinc anomalies were outlined.

### Description:

The property is underlain by a sequence of Lower Paleozoic sediments consisting of: Upper Cambrian wavy-banded limestone (Unit 7b, Green et al, 1967) correlative to the Rabbitkettle Formation to the west, Ordovician to Devonian black, graphitic and siliceous shales of the Road River Formation (Unit 10, op.cit.), and a thick sequence of Devonian-Mississippian black clastics consisting of shale, chert sandstone and chert-pebble conglomerate

(Unit 18b, op.cit.). The strata are folded into an easterly trending anti-cline plunging approximately 12° northeast, which is cut by an east-west fault.

#### Current Work and Results:

Detailed mapping in 1974 indicated that the geochemical anomalies are underlain by rocks of the chert shale unit of the Road River Formation in which lead-zinc mineralization is present on the Howard's Pass property of Canex Placer. Three holes were drilled to depths of 45 to 60 feet using a Winkie drill to test this horizon, but results were inconclusive due to permafrost, poor core recovery and mechanical breakdowns.

#### GULL

Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

105 I 11  
(62°34'N, 129°27'W)

References: Green et al (1967); Sinclair and Gilbert (1975, pp.93-94).

Claims: GULL 1-54

#### Location and Access:

The GULL claim group is 108 miles east-northeast of Ross River, immediately adjacent to the DON group of Canex Placer. Access in 1974 was by fixed wing to Summit Lake or an airstrip on the Canex Placer property and then by helicopter to the property itself.

#### History:

The claims were staked in the winter of 1972-73 and reconnaissance geological mapping and geochemical sampling were carried out during the following summer.

#### Description:

The property is underlain by a folded sequence of Lower Paleozoic sediments which are poorly exposed. The sequence consists of Upper Cambrian, wavy-banded limestone (Unit 7b, Green et al, 1967) overlain by black, graphitic, graptolitic shale of Lower Ordovician age (Unit 10, op.cit.) which is host to the lead-zinc showings on other properties in the immediate area. The shale is overlain in turn by a Devonian-Mississippian sequence of black clastics consisting of shale, chert sandstone and chert-pebble conglomerate (Unit 18b, op.cit.).

#### Current Work and Results:

Field work in 1974 consisted of detailed soil sampling for copper, lead and zinc. Two lead anomalies were outlined with strike lengths of 3,000 and 2,000 feet respectively. The anomalies are continuous except for a short gap between them which coincides topographically with a small creek. Both anomalies probably represent a single bedrock source but the nature of the bedrock in the area is obscured by the lack of outcrop.

TAP  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

Zinc  
105 I 12  
(62°29'N, 129°37'W)

References: Green et al (1967); Sinclair and Gilbert (1975, pp.90-91).

Claims: TAP 21-76, 100-113, 200-231

Location and Access:

The property lies 20 miles northwest of Summit Lake from which it can be reached by helicopter. Access is also possible by helicopter from Cominco Lake or from the airstrip on the Canex Placer property.

History:

The claims were staked by Dynasty in the summer of 1973 to cover a zinc anomaly discovered during a regional reconnaissance program. Further geochemical sampling in 1973 outlined a number of attractive zinc anomalies. Work on the claims was carried out by Dynasty under an agreement between Dynasty, Cima Resources Limited, Precambrian Shield Resources and Numac Oil and Gas Limited.

Description:

The property is underlain by Devonian-Mississippian black clastics consisting mainly of black chert, shale, chert sandstone and chert-pebble conglomerate (Unit 18b, Green et al, 1967). Blocky, thick-bedded, black chert is the most extensive unit and is characterized by thin fracture fillings of honey-coloured barite. Within the black chert unit are a number of beds up to 30 feet thick of black, baritic limestone. The black chert is successively overlain by black argillite and black shale, interbedded shale and chert and chert-pebble conglomerate. The rocks strike west-northwest and dip vertically to steeply to the north.

A nearly vertical, northeast-trending fault roughly perpendicular to bedding occurs on the eastern part of the property. The fault appears to have right-hand strike-slip movement of about 200 feet. The fault zone is 20 to 30 feet wide and is intensely brecciated.

Mineral showings on the property consist of gossanous baritic limestone with minor hydrozincite coatings in and adjacent to the fault zone. Selected gossanous samples assayed up to three per cent zinc. No sulphide minerals have been observed on the property.

Current Work and Results:

Detailed geological mapping and soil sampling were carried out by Dynasty in 1974. The soil sampling outlined a number of zinc anomalies coincident with the fault zone and downslope from baritic limestone. One strong, linear zinc anomaly was found along a main creek and is probably hydromorphic in nature. A large irregular copper anomaly was outlined over the black chert unit although no evidence of any copper minerals was observed. Lead results were generally low except for a few scattered high spot values.

TAM  
Dynasty Explorations Limited  
330 - 355 Burrard Street  
Vancouver, British Columbia

105 I 12  
(62°34'N, 129°45'W)

References: Green et al (1967); Sinclair and Gilbert (1975, p.95).

Claims: TAM 1-48

Location and Access:

The claims lie 19 miles northwest of Summit Lake, roughly 96 miles east-northeast of Ross River. In 1974, the property was serviced by helicopter from Summit Lake or from an airstrip on the Canex Placer property.

History:

The claims were staked in 1972 by Welcome North Mines Limited and subsequently optioned to Dynasty. Geological mapping and reconnaissance geochemical sampling with some detailed follow-up sampling were conducted in 1973.

Description:

The property is underlain by Paleozoic sediments consisting of argillite overlain by chert and shale, chert-pebble conglomerate and siltstone (Unit 18b, Green et al, 1967). No mineral showings have been found.

Current Work and Results:

A small amount of fill-in sampling was carried out on the property in 1974 but no areas warranting further work were defined.

MTX  
NRD Mining Limited  
305 - 535 Thurlow Street  
Vancouver, British Columbia  
V6E 3L2

105 I 12  
(62°35'N, 129°45'W)

References: Green et al (1967); Sinclair and Gilbert (1975, p.100).

Claims: MTX 1-63

Location and Access:

The property is situated 20 miles north-northwest of Summit Lake from which it can be reached by helicopter. Summit Lake can be reached by float-equipped aircraft from either Ross River or Watson Lake.

History:

The MTX claims were staked in 1972 and in 1973, a program of geological sampling was carried out which outlined a number of zinc anomalies.

Description:

The property appears to be underlain entirely by chert-pebble conglomerate, chert sandstone, shale and argillite (Unit 18b, Green et al, 1967). These rocks have been folded along an east-west axis. No mineral showings have

been found on the property although some rusty gossan was noted.

Current Work and Results:

In 1974, some hand trenching was carried out on the property to test geochemical anomalies outlined in 1973.

POS	
Thor Explorations Limited	105 I 12
301 - 540 Burrard Street	(62°30'N, 129°45'W)
Vancouver, British Columbia	

Reference: Green et al (1967).

Claims: POS 79-84, 88, 90

Location and Access:

The claims lie roughly 17 miles northwest of Summit Lake from which they can be reached by helicopter.

History:

The claims were staked in 1973 following the discovery of nearby lead-zinc showings by Canex Placer. Soil sampling was performed in 1973.

Description:

The property is underlain by argillite and chert-pebble conglomerate (Unit 18b, Green et al, 1967) which have been folded along east-west axes. No lead-zinc showings are known to occur on the property.

Current Work and Results:

Detailed soil sampling carried out in 1974 outlined a strong, though irregular zinc anomaly coincident in part, with a dense growth of willows on a hillside. No lead anomalies were found.

Itsi Lakes

SEL	Gold
Trident Resources Incorporated	105 I 13
c/o 107 - 325 Howe Street	(62°51'N, 129°53'W)
Vancouver, British Columbia	
V6C 1Z7	

Reference: Green et al (1967).

Claims: SEL 1-212

Location and Access:

The claims lie 110 miles northeast of Ross River from which they can be reached by helicopter.



### History:

The claims were staked late in the summer of 1973 following the discovery of gold-bearing quartz veins and a reconnaissance total heavy metal anomaly during the course of prospecting and regional soil and silt sampling.

### Description:

The bedrock geology consists of a sequence of Devonian-Mississippian shale, limy shale, minor limestone and sandstone grit (Unit 18b, Green et al., 1967). The rocks have a northerly strike and dip moderately to steeply to the west. On the western part of the property the formations have been tightly folded into a northward-plunging syncline. Disseminated pyrite occurs on bedding planes in black argillite and pyrite and arsenopyrite with traces of gold occur in a quartz vein crosscutting black shale.

### Current Work and Results:

Field work in 1974 consisted of geological mapping over the western part of the property and soil sampling for lead and zinc. Several zinc anomalies were outlined along the base of a ridge in the central part of the property and probably lie along the trace of a fault.

MS	
Dynasty Explorations Limited	105 J 16
330 - 355 Burrard Street	(62°46'N, 130°11'W)
Vancouver 1, British Columbia	

References: Roddick and Green (1961b); Sinclair and Gilbert (1975, pp.91-92).

Claims: MS 10-21, 30-41, 60-73, 90-101

### Location and Access:

The MS claims are roughly five miles south of Itsi Lakes and 92 miles northeast of Ross River. Access is by fixed wing from Ross River to Itsi Lakes and then by helicopter to the property itself.

### History:

The claims were staked in July 1973 and reconnaissance soil and silt sampling carried out at that time.

### Description:

The property is underlain by clastic sedimentary rocks of Devonian-Mississippian age (Roddick and Green, 1961b) consisting of interbedded hornfels-shale and black chert. These rocks have been folded about north-west-trending axes. To the northeast, the sequence is intruded by a syenitic, orthoclase feldspar porphyry and to the southwest it is intruded by an even-grained, syenitic rock with biotite-muscovite alteration. Both intrusive rocks are devoid of any visible sulphides. Hornfels is abundant at the sediment intrusive contact and pyrite and pyrrhotite are concentrated locally in the hornfels-shale near the intrusive contact. No other mineral occurrences have been observed.

Current Work and Results:

Geological mapping carried out in 1974 failed to discover any significant mineral showings.

Geochemical sampling was carried out for copper, molybdenum and tungsten but no significant anomalies were outlined.

A ground magnetometer survey outlined a northwest-trending anomaly in the northeast section of the property. This anomaly is roughly coincident with the hornfels-shale and intrusive contact and is probably due to the high pyrrhotite content of the hornfels-shale in this area.

MacMillan Pass

WSS	
Silver Standard Mines Limited	105 0 1
904 - 1199 West Hastings Street	(63°13'N, 130°06'W)
Vancouver, British Columbia	
and	
Welcome North Mines Limited	
8 - 1161 Melville Street	
Vancouver, British Columbia	
V6E 2X7	

Reference: Blusson (1974a).

Claims: WSS 1-32

Location and Access:

The WSS claims are situated approximately two miles southwest of MacMillan Pass, on the north side of the Canol Road. The claims are easily reached via the Canol Road which is presently open to vehicular travel during the summer months only.

History:

The claims were staked in August 1974.

Description:

The WSS claims are underlain by black shale and siltstone of the Road River Formation which ranges from Ordovician to Lower Devonian in age (Blusson, 1974a). The Road River is overlain by a sequence of Devonian-Mississippian black clastics which include shale, chert sandstone and chert-pebble conglomerate (Blusson, 1974a).

Current Work and Results:

A geochemical survey was carried out on the property in 1974.

COAL MINING AND EXPLORATION

WHITEHORSE MINING DISTRICT

Carmacks

TANTALUS BUTTE MINE  
Anvil Mining Corporation Limited  
1550 Alberni Street  
Vancouver, British Columbia

Coal  
115 I 1  
(62°08'N, 136°16'W)

References: Bostock (1936, pp.59-62); Green (1966, pp.121-124); Findlay (1967, p.88; 1969a, p.15; 1969b, pp.66-67); Craig and Laporte (1972, pp.155-156); Sinclair and Gilbert (1975, pp.121-122).

Lots and Leases: Leases 2955, 2959; Lots 23, 24

Location and Access:

The mine is situated on the north bank of the Yukon River, four miles north of Carmacks and less than one-half mile from the Whitehorse-Mayo Road.

History:

The mine began operation in 1923, supplying coal to Carmacks and Dawson and the mill at United Keno Hill Mines, Elsa until 1967. From 1969 on, the mine has been operated by Anvil Mining Corporation Limited (now Cyprus Anvil Mining Corporation).

Description:

The coal occurs in the Tantalus Formation of Upper Jurassic (?) and Lower Cretaceous age, consisting of conglomerate with lesser amounts of sandstone, shale and a few coal seams. The main seam ranges from eight to 20 feet thick, strikes north and dips 45° to 70° west. The seam is displaced by northeast-trending, southeast-dipping faults. The coal is a high volatile, bituminous coal with calorific value ranging from 11,000 to 12,700 BTU. Samples are agglomerating with a swelling index of 1 (ASTM) and are not suitable for making metallurgical grade coke (Green, 1966, p.124).

Current Activities:

During 1974, the mine operated at a daily rate of 68 tons for a total production of 17,027 tons. The coal was back hauled by Anvil ore trucks on their return to the Anvil Mine, where it was used for plant heating and concentrate drying.

PLACER MINING

DAWSON MINING DISTRICT

KLONDIKE AREA

- (1) G. Heitman 116 B 3  
Jackson Gulch (64°02'N, 139°21'W)

Reference: Sinclair and Gilbert (1975, p. 127).

This operator mined at Jackson's Gulch, using a D-8 bulldozer to work the deep (150 feet) White Channel bench gravels. Pay is largely restricted to the bottom six feet above bedrock.

- (2) C. Nicholson 116 B 3  
Trail Hill (64°01'N, 139°22'W)

Reference: Sinclair and Gilbert (1975, p. 127).

C. Nicholson mined his bench claims on Lovett Gulch above Bonanza Creek, using a bulldozer to feed the sluice and water pumped from Bonanza Creek.

- (3) S. Berg 116 B 3  
Bonanza Creek (64°00'N, 139°22'W)

Reference: Sinclair and Gilbert (1975, p. 127).

Mr. Berg worked part time during the 1974 season mining a left limit bench of Bonanza upstream from Sourdough Hill. A D-7 bulldozer was used to feed the sluice.

- (4) J. and R. Archibald 115 O 14  
Bonanza Creek (63°58'N, 139°20'W)

Reference: Sinclair and Gilbert (1975, p. 127).

The Archibald brothers continued mining bench gravels on Bonanza Creek below Mosquito Gulch. They mined approximately 1,500 cubic yards on a low bench, using a ditch diversion from Mosquito Gulch for stripping. A second bench, some 135 feet above Bonanza was also mined and 1,500 cubic yards of gravel were sluiced. Water was provided by a diesel-driven pump.

- (5) A., M., and D. Fry 115 O 14  
Grand Forks (63°55'N, 139°18'5"W)  
(Bonanza Creek and Eldorado Creek)

Reference: Sinclair and Gilbert (1975, pp. 127-128).

These operators continued to strip muck from above their 1973 workings at Grand Forks using two bulldozers, a D-7 and a D-8. Late in the season, they began mining a low irregular bench on Claim No. 3 on Eldorado. They also did several days mining on the north end of Gold Hill.

- (6) J. Lamontagne 115 O 14  
Eldorado Creek (63°51'N, 139°15'W)

Reference: Sinclair and Gilbert (1975, p.128).

Mr. Lamontagne holds 36 claims on Eldorado Creek from Gay Gulch to above Chief Gulch. Following preparation of ground during 1970, 1971 and 1972 he stripped and sluiced in 1973 and sluiced in 1974. The creek valley is narrow and tailings disposal difficult. These gravels have been mined previously; the most productive ground at present is the top foot of the quartzite and schist bedrock.

- (7) F. Perret 115 O 14  
Bonanza Creek (63°55'N, 139°13'W)

Reference: Sinclair and Gilbert (1975, p.128).

F. Perret mines on upper Bonanza Creek below Victoria Gulch and above Homestake Gulch. Working with an automatic gate for stripping and two TD-18 bulldozers Mr. Perret mined 5,000 bedrock square feet, the gravels being three to six feet thick. Gold recovery was 36 crude ounces.

- (8) Brendon - Gladiator Resources 116 B 3  
Bear Creek (64°01'N, 139°15'W)

Reference: Sinclair and Gilbert (1975, p.129, See J. Fraser).

These operators worked claims optioned and purchased from J. Fraser and F. Chapil starting roughly one mile upstream from the mouth of Bear Creek. They started in mid-July, mined approximately 5,000 cubic yards of gravel up to 20 feet deep, and did one mile of stripping upstream from the area being sluiced.

- (9) K. Tatlow 116 B 3  
Hunker Creek (64°01'N, 139°09'W)

Reference: Sinclair and Gilbert (1975, p.129, See Hunker Placers).

Mr. Tatlow purchased five claims on lower Hunker from B. Bratsberg late in 1973 and began mining in 1974. The ground, on the left limit of Hunker Creek, is part of the original Anderson concession. It was hand mined in the early days but not dredged. The present operator ground sluiced the top muck during the season and sluiced gravels for about ten hours.

- (10) Miben Mining Limited 116 B 3  
Dago Hill (64°00'30"N, 139°06'W)

Reference: Sinclair and Gilbert (1975, p.129).

M. Stutter and B. Warnsby continued their combined hydraulic and bull-dozer mining on the 32 claim property on the west side of Dago Hill on the left limit of Hunker Creek, two and one-half miles above the mouth. Diesel-driven pumps provide water for the monitors. White Channel bench gravels 45 to 90 feet thick are mined. Although gold is distributed throughout the section, the main concentration and coarsest gold is in the lowest eight feet



of gravel immediately overlying bedrock.

- (11) C. Richards, J. Dwight 116 B 3  
Hunker Creek (64°00'30"N, 139°08'W)

These men worked on the left limit of Hunker Creek between Dago Gulch and Last Chance Creek. Using a D-7, a front-end loader and a small monitor they sluiced approximately 10,000 bedrock square feet of hillside consisting of slide rock containing gravel layers.

- (12) F. Schneider 116 B 3  
Hunker Creek (64°01'N, 139°07'W)

Reference: Sinclair and Gilbert (1975, p.130).

This operator continued mining at the confluence of Hunker and Last Chance creeks. Gravel is brought to the sluice with a front-end loader. Water is pumped from Hunker Creek.

- (13) I. Bremner 116 B 3  
Last Chance Creek (64°00'N, 139°07'W)

Reference: Sinclair and Gilbert (1975, p.130).

As in previous years Mr. Bremner worked with a four-inch monitor. The 50-foot head is provided by a ten-inch diameter pipe. A five-mile ditch brings water from upstream on Last Chance Creek. White Channel bench gravels up to 50 feet thick on the left limit of the creek are worked. During the 1974 season, 18,000 cubic yards were sluiced.

- (14) A. Kosuta 116 B 3  
Hunker Creek (64°00'N, 139°05'W)

Reference: Sinclair and Gilbert (1975, p.130).

Mr. Kosuta worked his claims on Eighty Pup during the season, putting in one cut 80 feet long, 60 feet wide and 40 feet deep. The upper 35 feet is muck with only the lower three to five feet being pay gravel. Gold recovery was stated as 80 ounces. Most work was directed towards preparing ground for 1975 and included some stripping of two claims on Seventy Pup.

- (15) O. and M. Lunde 115 O 15  
Gold Bottom Creek (63°57'N, 138°59'W)

Reference: Sinclair and Gilbert (1975, p.130).

Mr. and Mrs. Lunde mined on Gold Bottom Creek downstream from the mouth of Soda Pup (Claim 14 above the mouth of Gold Bottom Creek. Operations were similar to those of previous years; they put in three cuts totalling 35,000 bedrock square feet using a D-7 bulldozer.

- (16) M. and D. Crockett 115 0 15  
Gold Bottom Creek (63°55'N, 138°59'W)

Reference: Sinclair and Gilbert (1975, p.131).

As in 1973, these operators continued mining the paystreak on Gold Bottom Creek, moving gravels to the sluice with a D-8 bulldozer.

- (17) J. Erickson 115 0 15  
Hunker Creek (63°56'N, 138°54'W)

Reference: Sinclair and Gilbert (1975, p.131).

J. Erickson works claims 1 A/D on Hunker Creek. He strips muck up to 35 feet thick using a monitor with pressure provided by a TD-18 driven pump. Using a TD-18 bulldozer and a front-end loader, the lower two to three feet are moved to the sluice. The ground was previously mined by hand methods from underground; the present pay is in small but rich pillars left from these earlier workings.

- (18) P. Erickson 115 0 15  
Hunker Creek (63°54'N, 138°54'W)

Reference: Sinclair and Gilbert (1975, p.131).

During the 1974 season Mr. Erickson worked full time on the right fork of Hunker Creek using a D-8 bulldozer and monitor. Gold was recovered from rich pockets left by the early, underground hand miners.

- (19) G. Crawford 115 0 15  
Hunker Creek (63°53'N, 138°54'W)

G. Crawford mined 10,000 bedrock square feet on a low bench on the right limit of the right fork of Hunker Creek using a D-7 bulldozer, pump and monitor to put in a series of small cuts.

- (20) K. and S. Placers 115 0 15  
Allgold Creek (63°56'N, 138°37'W)

Reference: Sinclair and Gilbert (1975, p.132).

Mr. and Mrs. Kinakin hold 31 claims up from the mouth of Allgold Creek. Working claim 8 A/D in a series of cuts 100 feet long and the full width of the valley (50 to 100 feet) these operators sluiced 25,000 cubic yards of gravel using a D-7 bulldozer.

- (21) A. and N. Burgleman 115 0 15  
Dominion Creek (63°50'N, 138°49'W)

Reference: Sinclair and Gilbert (1975, p.132).

Mr. and Mrs. Burgleman, with J. Stewart mined on Claim 20 above the mouth of Caribou Creek and did some hydraulic stripping (booming and monitoring) on Dominion Creek at the mouth of Caribou Creek (Claims 1 and 2).

- (22) A. and N. Sailer 115 0 15  
Dominion Creek (63°48'N, 138°36'W)

Reference: Sinclair and Gilbert (1975, p.132).

Mr. and Mrs. Sailer mined a left limit bench of Dominion Creek downstream from Nevada Creek. A total of 42,000 bedrock square feet were mined from three cuts. The average depth of the gravels is 15 feet on the lower ground and eight to ten feet over a bedrock rise. Equipment used was a D-6 bulldozer as in previous years, and a D-8 which was brought into use during the 1974 season. The overlying muck is stripped largely by monitor.

- (23) Ballarat Mines Limited 115 0 15  
Dominion Creek (63°50'N, 138°45'W)

Reference: Sinclair and Gilbert (1975, p.133).

Ballarat Mines Limited, owned and managed by Mrs. H. Schmidt, completed their intended mining of the Dominion Creek property. They will move their sluicing operations to claims on Quartz Creek for the 1975 season.

- (24) Leisure Gold Limited 115 0 15  
Dominion Creek (63°46'N, 138°22'W)  
Eureka Creek 115 0 10  
(63°38'N, 138°50'W)

Reference: Sinclair and Gilbert (1975, p.133, See Black Creek Mining Limited).

This company operates on the left limit of lower Dominion Creek immediately above Jensen Creek on claims optioned from Black Creek Mining Limited. Leisure Gold Limited in 1974 used three D-8 bulldozers for moving gravels to the sluice and removing tailings. Gravels are only a few feet thick but as much as six feet of the deeply weathered bedrock is mined. A total of 45,000 cubic yards were mined.

On Eureka Creek the company holds Claims 1 to 31 above the mouth, also obtained from Black Creek Mining Limited. During 1974 the company mined claims 2 to 5 above the mouth, sluicing 60,000 cubic yards of gravel roughly ten feet deep.

- (25) Fell Hawk Placers 115 0 15  
Dominion Creek (63°46'N, 138°31'W)

Reference: Sinclair and Gilbert (1975, p.133, See I. Norback).

W. and G. Hakonson and W. and J. Fellers worked claims formerly held by Mr. I. Norback on the left limit of lower Dominion Creek. On ground previously prepared by Norback, the operators moved approximately 84,000 cubic yards, of which 60,000 cubic yards were sluiced. Gravels are six to 20 feet thick, there being an irregular top surface to the deposit. They plan to work leases on the Sixtymile River during 1975.

- (26) R. and R. Mining Company 115 0 14  
Quartz Creek (63°48'N, 139°04'W)

Reference: Sinclair and Gilbert (1975, p.134).

J. Lacross and W. Rasmussen continued mining on Quartz Creek at Little Blanche Creek. Using three bulldozers, a D-9, two D-8's and a one and one-half yard dragline they mined 100,000 square feet in two left limit cuts, each 200 feet wide. One cut covered 40,000 bedrock square feet, the second covered 60,000. The section consists of six to eight feet of gravel overlain by 22 to 24 feet of muck.

- (27) D. and D. Mining 115 0 10  
Sulphur Creek (63°41'N, 138°43'W)  
D. Rintoul, D. Christir, A. Sinkowicz

These men put down two test shafts using a small steam boiler for thawing the muck. One shaft was 23 feet deep, the second 53 feet. Both shafts failed to reach gold-bearing gravels.

- (28) R. and B. Gibson 115 0 15  
Sulphur Creek (63°47'N, 138°54'W)

Reference: Sinclair and Gilbert (1975, p.134).

This couple put in one cut 100 feet by 200 feet on the left limit of Friday Gulch, a left limit tributary of Sulphur Creek. Grey-brown silt, ten to 15 feet thick overlies the pay zone which here consists of a few feet of gravel and decomposed quartz-mica schist bedrock.

- (29) K. Djukestein and L. Gatenby 115 0 15  
Sulphur Creek (63°50'N, 138°55'W)

These operators started on Sulphur Creek in 1974 using two highway scrapers, one D-7 and one D-8 bulldozer. A pump was used to return water from the tailings. A centre cut was put in on claims 24 and 25. The section is ten to 25 feet thick with the gold in the bottom eight feet.

- (30) L. Ross 115 0 10  
Eureka Creek (63°35'N, 138°52'W)

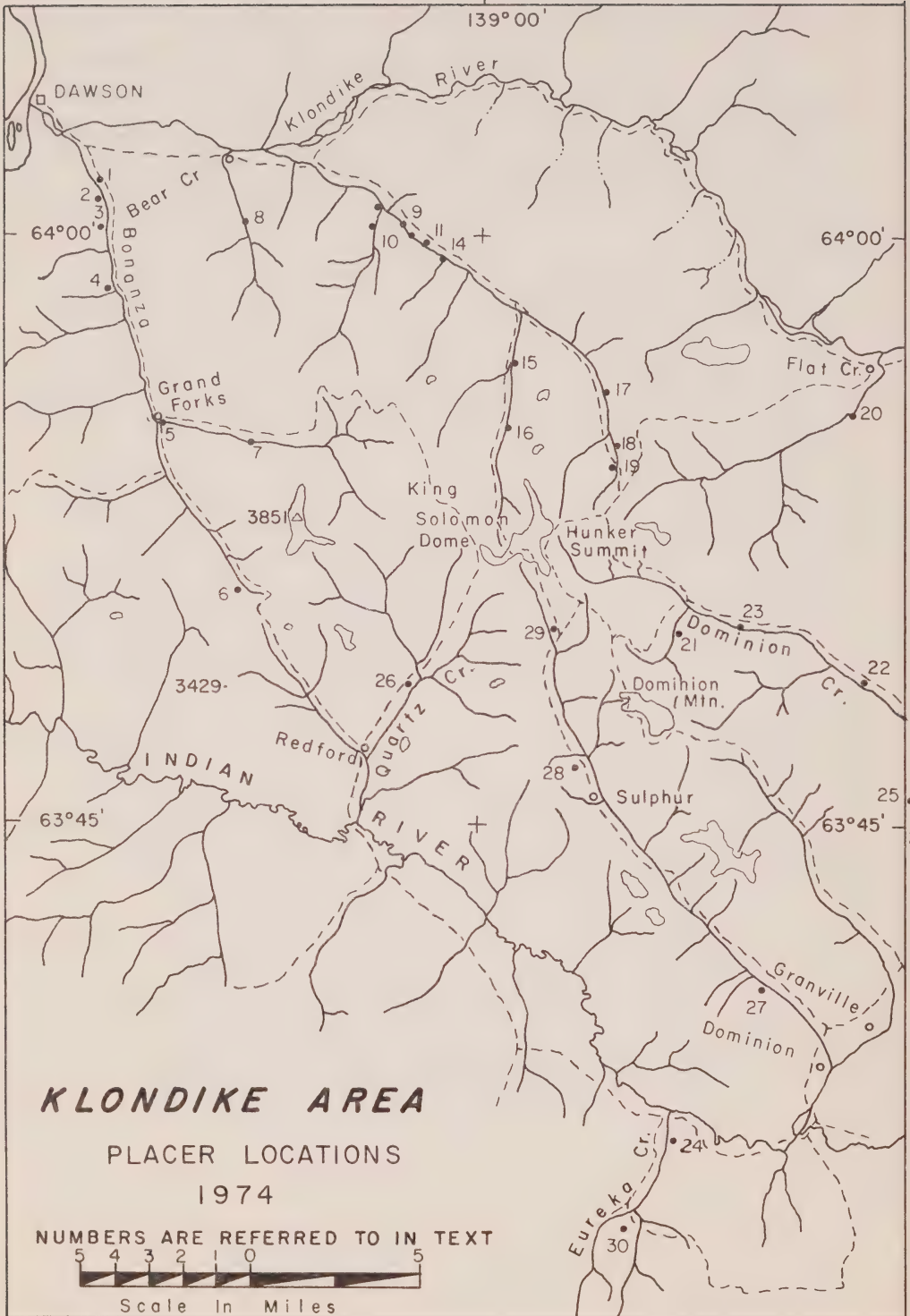
Reference: Sinclair and Gilbert (1975, p.134).

L. Ross holds claims 12 to 20 above Left Fork Discovery on Eureka Creek. Using a D-8 bulldozer this operator mined one full width cut roughly 120 feet wide and 200 feet long. Approximately 12 feet of overburden was stripped and the lower five to ten-foot pay section sluiced.

PLACER OPERATIONS - KLONDIKE 1974

1. G. Heitman
2. C. Nicholson
3. S. Berg
4. J. and R. Archibald
5. A. and D. Fry
6. J. Lamontagne
7. F. Perret
8. Brendon - Gladiator Resources
9. K. Tatlow
10. Miben Mining Company
11. C. Richards, J. Dwight
12. F. Schneider
13. I. Bremner
14. A. Kosuta
15. O. and M. Lunde
16. M. and D. Crockett
17. J. Erickson
18. P. Erickson
19. G. Crawford
20. K. and S. Placers
21. A. and N. Burgleman
22. A. and N. Sailer
23. Ballarat Mines Limited
24. Leisure Gold Limited
25. Fell Hawk Placers
26. R. and R. Mining Company
27. D. and D. Mining
28. R. and B. Gibson
29. K. Djukestein and L. Gatenby
30. L. Ross





SIXTYMILE AREA

- (1) J. Lynch 116 C 2  
Glacier Creek (64°02'N, 140°53'W)

Reference: Sinclair and Gilbert (1975, p.147).

Mr. J. Lynch, operating with a D-7 bulldozer, put in a cut 125 feet long and 150 feet wide on the right limit of Glacier Creek on Grimard Discovery claim. The material, including five feet of weathered bedrock, is pushed to a monitor, washed to remove part of the fines, then pushed into the sluice.

- (2) Glacier Creek Placers 116 C 2  
Glacier Creek (64°02'N, 140°46'W)

Reference: Sinclair and Gilbert (1975, p.147).

L. Grimard and E. Faucher, owners of Glacier Creek Placers, continued mining on the left limit bench of Glacier Creek where they have been for the past four years on claims 7 and 8. They strip 35 feet of overlying clay and fine silt, and sluice the lower two to four feet of pay gravel. The work is done with two D-6 bulldozers. They have had some stripping done with a D-8 on contract from Gillespie Enterprises. They mined roughly 30,000 bedrock square feet in 1974.

- (3) A. and A. Brisboise 115 N 15  
Miller Creek (63°59'N, 140°49'W)

These men, doing their first season of mining, worked a bench claim on the left limit of Miller Creek at the mouth, putting in a deep cut 200 feet long and 70 feet wide. The top 12 feet of a 27-foot gravel section is stripped, the lower eight feet of gravel and top of decomposed andesite bedrock are sluiced. They worked for one month, recovering approximately 80 crude ounces of gold. These operators also re-sluiced tailings from an earlier bulldozer operation, recovering a significant amount of gold. The abundant heavy minerals in these gravels, largely garnet, magnetite, hematite and galena had apparently made earlier recoveries inefficient. The Brisboise brothers operated with one D-8 and one D-7 part time.

- (4) Sixtymile Enterprises 115 N 15  
Sixtymile River (63°59'N, 140°47'W)

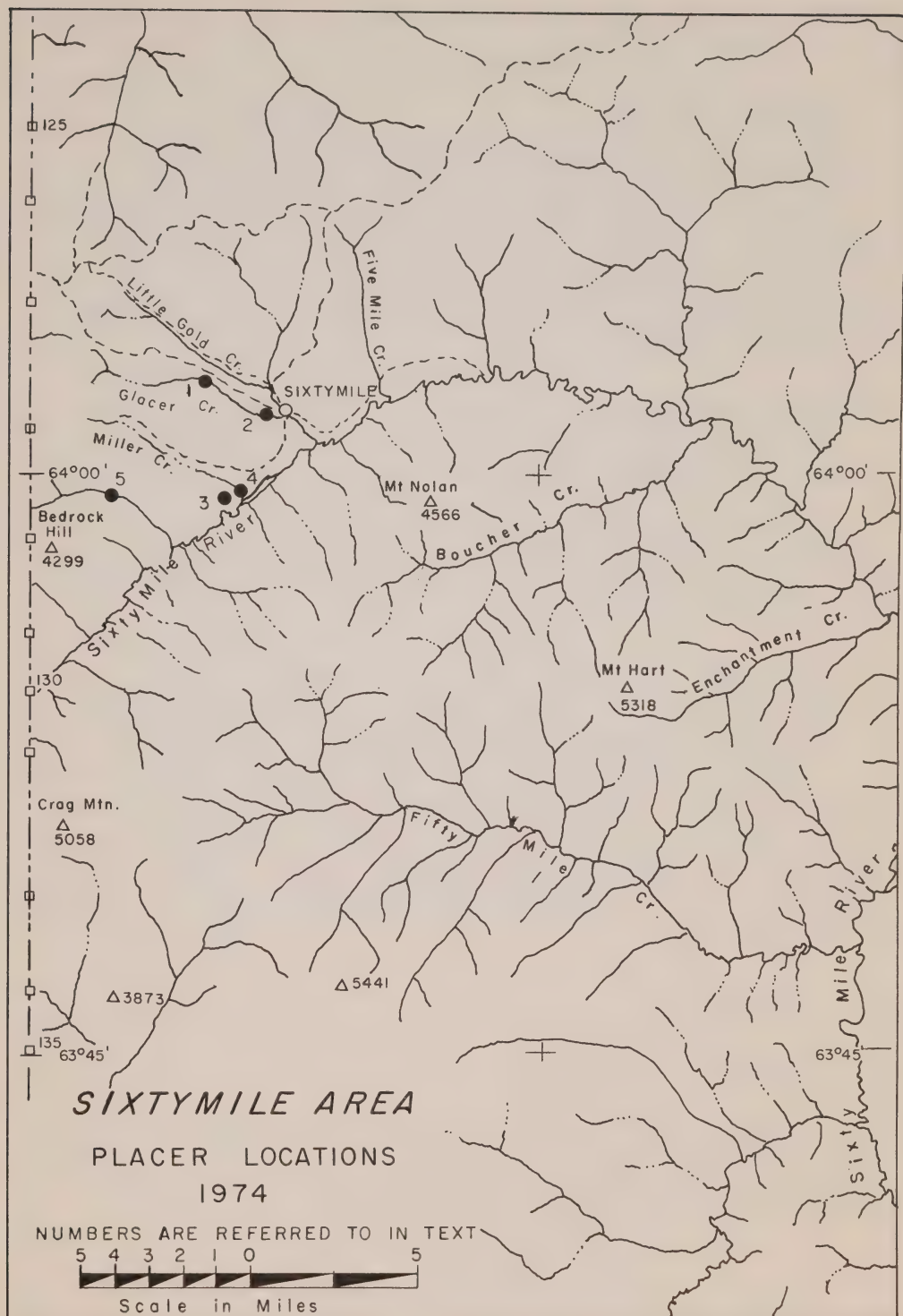
Mr. W. Yaremicio has mined a left limit bench of the Sixtymile River between Miller and Big Gold Creeks since 1971. During 1973 and 1974 he mined a strip 700 feet long by 150 feet wide. He uses a D-7 bulldozer and monitors to strip some 20 feet of muck and slide-rock from a zone of pay gravels up to five feet thick.

- (5) S. Prohaszka 115 N 15  
Bedrock Creek (63°59'N, 140°55'W)

Mr. Prohaszka holds ten claims and three miles of prospecting leases on Bedrock Creek. He started working the property in 1971, stripping ten feet of barren sand and gravel. In 1973 work consisted of providing drainage. In 1974 the operator dug a drainage ditch with a one cubic yard dragline and put in three small cuts with two D-7 bulldozers.

PLACER OPERATIONS - SIXTYMILE 1974

1. J. Lynch
2. Glacier Creek Placers
3. A. and A. Brisboise
4. Sixtymile Enterprises
5. S. Prohaszka



MAYO MINING DISTRICT

MAYO-McQUESTEN AREA

- (1) Clear Creek Gold Mines 115 P 14  
Clear Creek (63°48'N, 137°16'W)

Reference: Sinclair and Gilbert (1975, pp.142-143).

W. Scott and L. Logie started work on Left Clear Creek in 1973, mostly preparing ground for mining. During the 1974 season, four men, using one D-8 and one D-6 put in a cut of 35,000 bedrock square feet on the left limit of the creek, 500 feet downstream from the mouth of Barney Creek. One cut of 20,000 bedrock square feet at the mouth of Barney Creek was completed. The section consists of roughly 15 feet of gravel over coarse-grained quartz-chlorite schist bedrock.

- (2) A. Genier and T. Thompson 115 P 14  
Clear Creek (63°47'N, 137°16'W)

Reference: Sinclair and Gilbert (1975, p.138).

These men hold a one-mile lease on Left Clear Creek immediately above the lease of Scott and three additional one-mile leases on the creek. They did some churn drilling (four holes) during the season and sluiced 1,000 cubic yards of gravel from an eight-foot section of bank adjacent to old dredge tailings.

- (3) Darron Placers 106 D 4  
Dublin Gulch (64°02'N, 135°50'W)

Reference: Sinclair and Gilbert (1975, p.138).

R. Holway and D. Duensing operated on Dublin Gulch, a tributary of Haggart Creek using a 955 Caterpillar front-end loader, a front-end payloader (rubber-tired) and a D-7 bulldozer. Large boulders are removed by a grizzly over the sluice. The gravels are irregular in depth but average about 30 feet, with erratic glacial till over the gravel. There apparently are two channels with a bedrock high between. The right hand channel is higher and has finer gold. Pay is distributed irregularly through the section and all the gravel is sluiced.

- (4) C. and H. Klippert 115 P 16  
(63°50'N, 136°20'W)

Reference: Sinclair and Gilbert (1975, p.138).

The Klippert brothers worked part time on their one-mile lease on Johnson Creek during the 1974 season. Using a 977 tractor front-end loader and two rubber-tired front-end loaders they dug a series of test pits from the creek to a right limit bench and put in one cut on the bench. Pay gravels range from three to six feet in thickness.



- (5) E. Bleiler  
Highet Creek

115 P 16  
(63°44'N, 136°08'W)

Reference: Sinclair and Gilbert (1975, p.139).

Mr. Bleiler continued mining on the left limit of Highet Creek during 1974. Main work is done by monitor using a two-inch diameter pipe to bring water from a ditch 80 feet above on the right limit of the creek. Additional equipment consists of a 955 Traxcavator front-end loader and, added in 1974, a D-8 bulldozer. The entire 30 feet of gravel section is fed to the sluice by the monitor.

- (6) F. Erl  
Highet Creek

115 P 9  
(63°45'N, 136°09'W)

Reference: Sinclair and Gilbert (1975, p.139).

Mr. Erl holds four claims and a one-mile placer lease on the upper part of Highet Creek. During 1973 he stripped ground with a D-8 bulldozer and in 1974 worked a right limit cut in the narrow stream valley. Pay is in the lower six feet of the 30-foot section. Bedrock here is biotite schist and quartzite.

- (7) Bardusan Placers Limited  
Thunder Gulch

105 M 14  
(63°55'N, 135°15'W)

Reference: Sinclair and Gilbert (1975, p.140).

Mr. Barchan owns 18 contiguous claims on Thunder Gulch, starting 1,000 feet up from the mouth. During 1974 he mined on Claim No. 1, using a D-6 bulldozer and a three-cubic yard front-end loader. Approximately 4,000 cubic yards of overburden consisting of muck and boulders were stripped and 11,000 cubic yards of pay gravels nine to 23 feet deep were sluiced.

PLACER OPERATIONS - MAYO-McQUESTEN 1974

1. Clear Creek Gold Mines
2. A. Genier and T. Thompson
3. Darron Placers
4. C. and H. Klippert
5. E. Bleiler
6. F. Erl
7. Bardusan Placers Limited

# MAYO - McQUESTEN AREA

## PLACER LOCATIONS

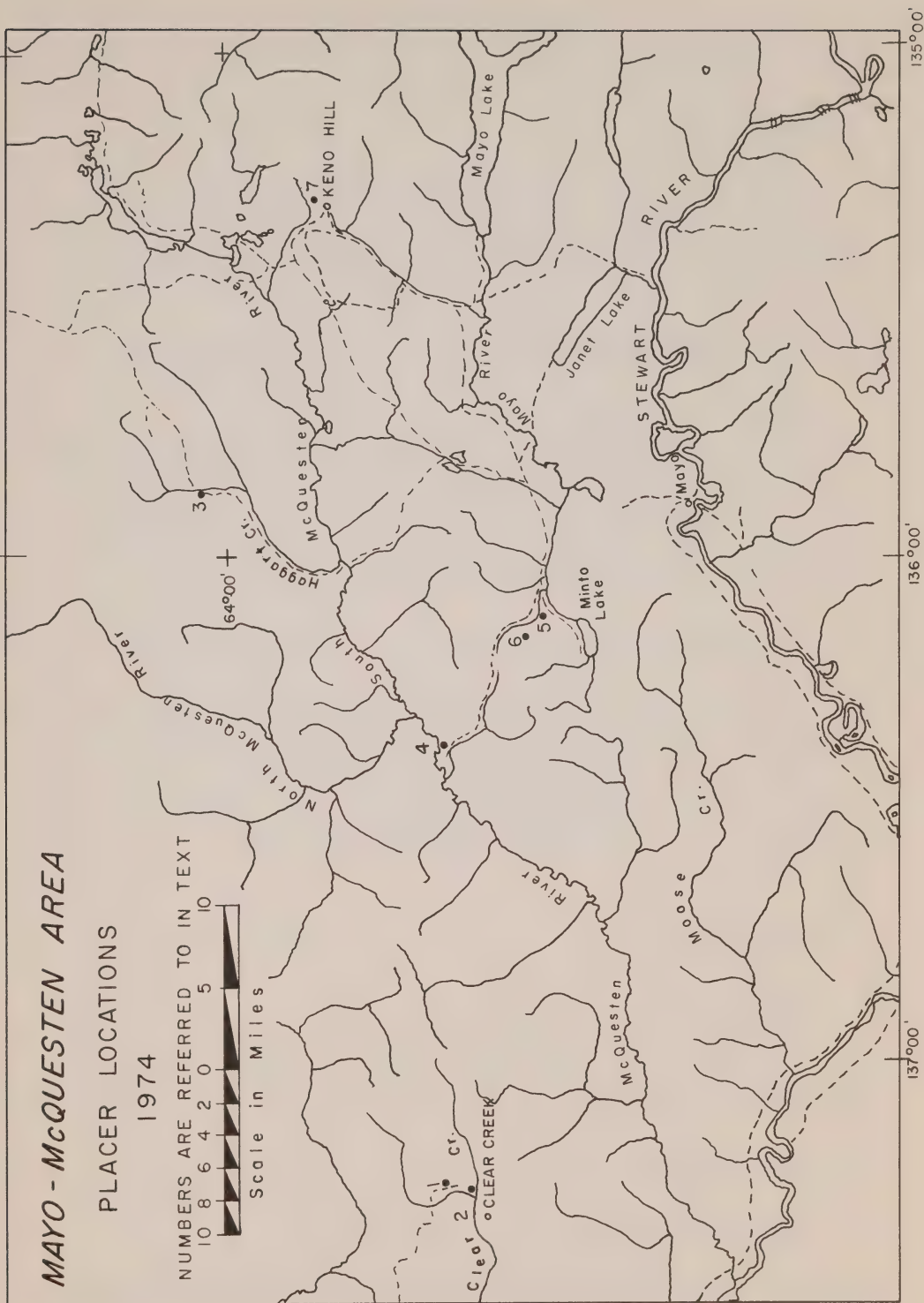
1974

NUMBERS ARE REFERRED TO IN TEXT

10 8 6 4 2 0 5 10



Scale in Miles



WHITEHORSE MINING DISTRICT

KLUANE AREA

- (1) W. Wyatt 115 G 6  
Burwash Creek (61°22'N, 139°18'W)

Reference: Sinclair and Gilbert (1975, p.143).

Mr. Wyatt worked his claim on lower Burwash Creek part time during the 1974 season. Using a TD-14 bulldozer and front-end loader he put in one right limit cut of roughly 2,500 bedrock square feet.

- (2) Burwash Mining Company Limited 115 G 6  
Tatamagouche Creek (61°23'N, 139°19'W)

Reference: Sinclair and Gilbert (1975, p.143).

Mr. H. Besner, with a crew of three men continued mining on Tatamagouche Creek using a three-quarter cubic yard shovel and two D-8 bulldozers, working claim 5 above the mouth. They sluiced approximately 20,000 cubic yards of gravel, taking full width cuts across the narrow valley. Large boulders and the constricted area make mining difficult. Platinum, as fine grains and nuggets, makes up one per cent of the precious metal production. A copper nugget weighing 400 pounds was also recovered.

- (3) Greenland Explorations Limited 115 G 6  
Burwash Creek (61°22'N, 139°21'W)

This firm employed up to 14 men during the 1974 season operating on upper Burwash Creek. Much of the season was spent readying equipment with sluicing done during September. A two and one-half yard Northwest shovel puts gravel on a grizzly-protected conveyor. The material is raised 25 feet, passed down through two screens and then sluiced. When operating, the system processes 80 to 100 cubic yards per hour. During the 1974 season approximately 25,000 cubic yards of gravel were mined from a section 12 to 15 feet deep.

- (4) W. Rothbauer 115 G 6  
Tatamagouche Creek (61°24'N, 139°25'W)

Reference: Sinclair and Gilbert (1975, p.143).

Mr. Rothbauer mines on a one-mile lease on upper Tatamagouche Creek on a royalty agreement with the owner, R. Holway. He started operations in 1973 and in 1974 sluiced 12,000 bedrock square feet from a gravel section ranging from six to 15 feet deep of which the bottom two to three feet is pay.

- (5) Zimmer, Deerdorf, et al 115 G 8  
Gladstone Creek (61°20'N, 138°30'W)

Reference: Sinclair and Gilbert (1975, p.144).

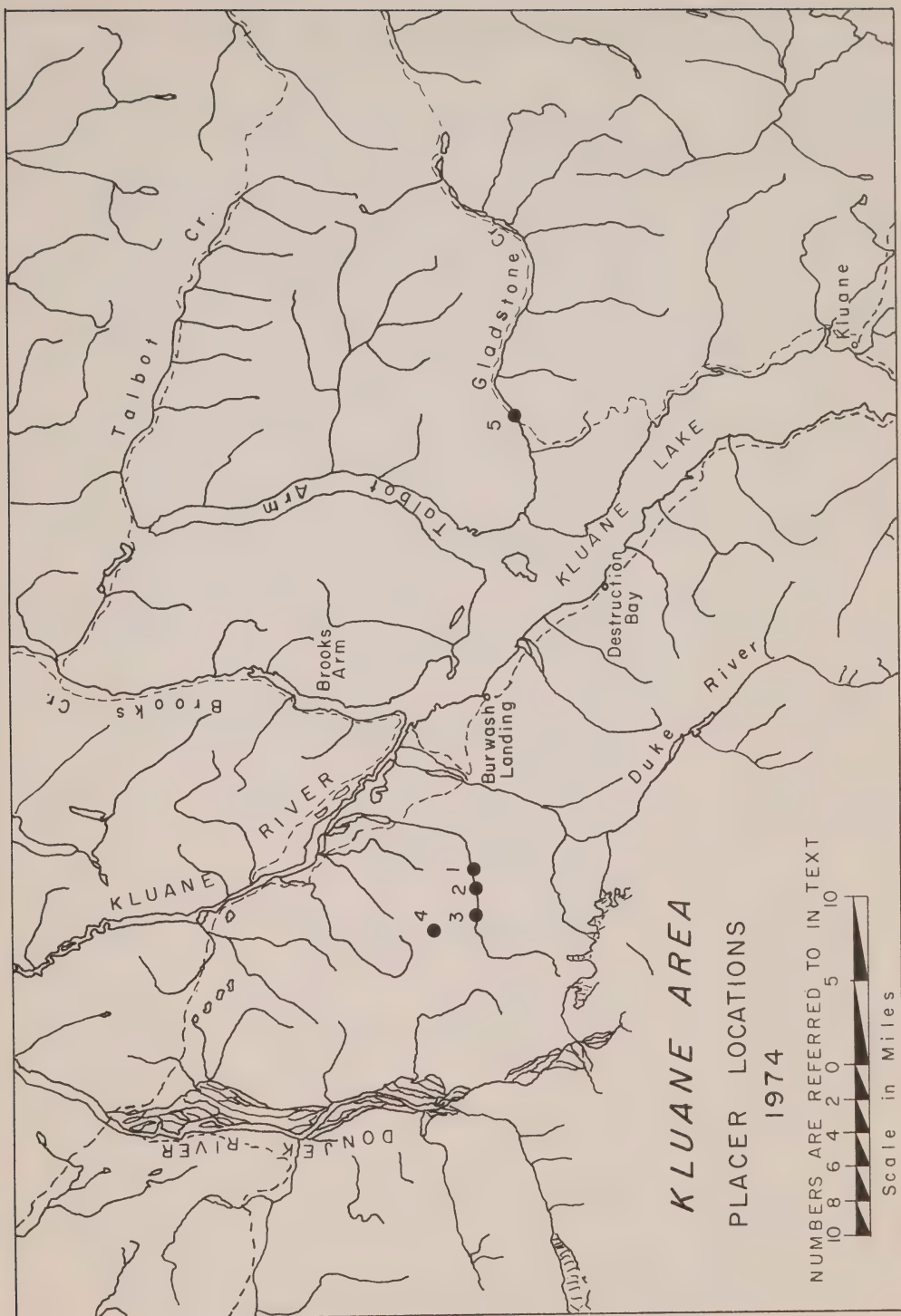
Four men, under an agreement with D. Branigan, worked two months on Cyr Creek, a left limit tributary of Gladstone Creek. They used a 977 front-end

loader and D-7 bulldozer to mine 10,000 square feet of gravels up to ten feet deep. They operated on a right limit bench. Gold recovery was negligible.



PLACER OPERATIONS - KLUANE 1974

1. W. Wyatt
2. Burwash Mining Company Limited
3. Greenland Explorations Limited
4. W. Rothbauer
5. Zimmer, Deerdorf, et al



REPORTS ACCEPTED FOR ASSESSMENT CREDIT - 1974

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
95 D 5, 12 60°31'N, 127°57'W	PORKER Hyland Joint Venture N. R. Patterson	1/75	Geophys
105 D 3 60°10'N, 135°24'W	WH El Paso Mining and Milling Co. Ltd. B. Taylor	6/74	Geol, Geochem
105 D 3 60°11'N, 135°13'W	POP Belmoral Mines Ltd. F. Holcapek	5/9/74	Geol
105 D 11 60°41'N, 135°22'W	PANTHER Whitehorse Copper Mines Ltd. D. Tenney	10/74	Geochem
105 E 1 61°12'N, 134°11'W	LYNX Loon Lake Syndicate P. H. Sevensma	9/12/74	Geol, Geochem
105 F 4 61°01'N, 133°40'W	AG El Paso Mining and Milling Co. Ltd. B. Taylor	30/6/74	Geol, Geochem
105 G 2 61°01'N, 130°42'W	S, J Du Pont Explorations Ltd. C. B. Gunn	30/9/74	Geol
105 G 3 61°09'N, 131°06'W	JIM Envoy Resources Ltd. R. G. Hilker	27/11/74	Geol, Geochem
105 H 2, 7 61°15'N, 128°40'W	ELC, SUZANNE Dual Resources Ltd. D. L. Hings	27/3/75	Geochem, Mag
105 I 5, 12 62°30'N, 129°37'W	TAP Dynasty Explorations Ltd. T. J. Adamson	12/74	Geol, Geochem
105 I 6 62°29'N, 129°17'W	ROSS Cream Silver Mines Ltd. F. Holcapek	10/16/74	Geol, DD
105 I 11 62°34'N, 129°27'W	GULL Dynasty Explorations Ltd. T. J. Adamson	9/74	Geochem

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
105 I 12 62°30'N, 129°45'W	POS L. Hart R. S. Adamson	10/12/74	Geochem
105 I 12 62°34'N, 139°45'W	TAM Dynasty Explorations Ltd. T. J. Adamson	12/74	Geochem
105 I 13 62°51'N, 129°53'W	SEL Trident Resources Inc. F. Holcapek	3/1/74	Geol, Geochem
105 I 13 62°51'N, 129°53'W	SEL Trident Resources Inc. J. R. Deighton	2/10/74	Geol, Geochem
105 J 16 62°46'N, 130°11'W	MS Dynasty Explorations Ltd. S. L. McLennan	12/74	Geol, Geochem, Geophys
105 K 2, 3 62°00'N, 133°00'W	PEA, BP, DP Cyprus Anvil Mining Corp. P. E. Walcott	8/74	Geophys
105 K 2 62°13'N, 132°56'W	CIVI Cream Silver Mines Ltd. J. R. Deighton	8/74	Geol, Geochem
105 K 3 62°10'N, 133°23'W	RIDGE Silver Standard Mines Ltd. Teck Mining Group Ltd. G. D. Ulrich	3/1/75	Geol, Geochem, VLF-EM
105 K 6, 7 62°17'45"N, 133°01'30"W	ELLE Silver Standard Mines Ltd. Teck Mining Group Ltd. G. D. Ulrich	31/12/74	Geol, Geochem, Mag, VLF-EM
105 K 6 62°25'N, 133°04'W	MING Cream Silver Mines Ltd. J. R. Deighton	10/74	Geol, Geochem
105 M 13, 106 D 4 64°00'N, 135°35'W	CH United Keno Hill Mines Ltd. T. R. Scott	25/3/75	Geol, Geochem
105 M 13 63°53'N, 135°40'W	SNOWDRIFT United Keno Hill Mines Ltd. T. Levicki	3/75	Geol, Geochem

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
105 M 14 63°54.5'N, 135°21'W	ROSS Rio Plata Silver Mines Ltd. K. L. Daughtry	4/4/75	Geochem
105 M 14 63°56'N, 135°22'W	SOMETHING Rio Plata Silver Mines Ltd. K. L. Daughtry	4/4/75	Geochem, Mag
105 N 9, 105 O 12 63°40'N, 132°02'W	PLATA, INCA Dynasty Explorations Ltd. W. J. Roberts	11/74	Geol, Geochem
105 O 8 63°15'N, 130°05'W	KEN Canada Tungsten Mining Corp. Ltd. P. R. Bailey, M. J. Lewis	3/74	Geophys
105 O 8 63°16'N, 130°17'W	SLATE Regency Resources Ltd. D. W. Tully	23/5/75	Mag, EM
106 B 6 64°20'N, 131°13'W	ECON Noranda Exploration Co. Ltd. G. Gibson, I. Watson	17/10/74	Prospect, Geol, Trench
106 C 7 64°24'N, 132°57'W	CVO, BPR, TRW Twin River Resources Ltd. (T.R.V. Minerals Corp. Ltd.) J. J. Oberbillig, G. C. Gutrath	8/1/75	Geol, Geochem
106 C 6 64°26'N, 133°05'W	MAG Menika Mining Ltd. D. G. Mark	3/4/75	Aeromag, VLF-EM
106 C 6 64°27'N, 133°00'W	CVO Corval Resources Ltd. V. Cukor	28/9/74	Geol
106 C 7, 8 64°25'N, 132°30'W	Goz Creek Property Barrier Reef Resources Ltd. C. M. Hamilton	12/73	Geol, Geochem
106 C 7, 8 64°27'N, 132°30'W	BID Sicintine Mines Ltd. C. M. Hamilton	10/74	Geol, Geochem



N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
106 C 7, 8 64°27'N, 132°31'W	BID, ACE Gentry Oil and Gas Ltd. T. L. Sadlier-Brown, C. Ikona	30/8/74	Geol
106 C 7 64°24'N, 132°34'W	DU Harman Management Ltd. C. K. Ikona	29/8/74	Geol, Geochem
106 C 7 64°24'N, 132°40'W	YK Tournigan Mining Explorations Ltd. C. G. Verley, O. S. Hairsine	10/74	Geol, Geochem, Trench
106 C 7 64°24'N, 132°55'W	CVO, BPR Kendal Mining & Exploration Co. Ltd. J. J. Oberbillig, G. C. Gutrath	9/74	Geol, Geochem
106 C 7 64°25'N, 132°40'W	ANN, GAL, GIN, GOZ Conwest Exploration Co. Ltd. C. G. Verley, O. S. Hairsine	11/74	Geol, Geochem
106 C 7 64°25'N, 132°49'W	BOB, GEP, GYK Great Plains Development Co. of Canada Ltd. C. G. Verley, O. S. Hairsine	11/74	Geol, Geochem, IP
106 C 7 64°25'N, 132°49'W	BOX Junex Resources Ltd. D. H. Waugh	7/74	Geol, Geochem
106 C 7 64°26'N, 132°46'W	MX Harman Management Ltd. K. Ikona	23/8/74	Geol, Geochem
106 C 7 64°26'N, 132°50'W	PESO Nicola Copper Mines Ltd. T. L. Sadlier-Brown, C. Ikona	30/8/74	Geol, Geochem
106 C 7 64°27'N, 132°34'W	ACE Chatex Industries Ltd. C. M. Hamilton	10/74	Geol, Geochem
106 C 7 64°28'N, 132°48'W	HD Tacoma Resources Ltd. E. O. Chisholm	23/1/75	Geochem, Geophys

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
106 C 7 64°28.5'N, 132°43'W	DICK Harman Management Ltd. C. Ikona	30/8/74	Geol, Geochem
106 C 7 64°29'N, 132°40'W	TOM Harman Management Ltd. C. K. Ikona	29/8/74	Geol, Geochem
106 C 8 64°24'N, 132°29'W	NAD Sicintine Mines Ltd. C. M. Hamilton	10/74	Geol, Geochem
106 C 8 64°25'N, 132°25'W	PLU G.B.X. Mines Ltd. G. C. Gutrath	28/9/74	Geol, Geochem
106 C 8 64°25.5'N, 132°21'W	TYE Belmoral Mines Ltd. F. Holcapek	17/10/74	Geol, Geochem
106 C 8 64°26'N, 132°16'W	LIZ Acheron Mines Ltd. F. Holcapek	31/9/74	Geol, Geochem
106 C 8 64°26'N, 132°18'W	LIZ Cream Silver Mines Ltd. F. Holcapek	31/8/74	Geol, Geochem
106 C 8 64°27'N, 132°20'W	RUM Colby Mines Ltd. C. I. Ikona	29/8/74	Geol, Geochem
106 C 8 64°27'N, 132°24'W	RYE Claymore Resources Ltd. C. M. Hamilton	10/74	Prospect, Geol, Geochem
106 C 8 64°27'N, 132°27'W	RYE, BID Action Resources Ltd. C. M. Hamilton	10/74	Geol, Geochem, Prospect
106 C 8 64°28'N, 132°13'W	RAF Harman Management Ltd. C. Ikona	26/8/74	Geol, Geochem
106 C 9, 10 64°34'N, 132°32'W	AXE, NEST Arctic Red Joint Venture c/o Welcome North Mines Ltd. J. S. Brock, J. D. Guild	31/1/75	Geol
106 C 9, 10 64°40'N, 132°32'W	AL Cyprus Anvil Mining Corp. R. J. Cathro	5/8/74	Geol, Geochem

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
106 C 10 64°35'N, 132°33'W	BAR A. Harman, C. Toporowski E. O. Chisholm	25/6/74	Geol
106 C 10 64°38.5'N, 132°55'W	PONG Bow River Resources Ltd. Highhawk Mines Ltd. T. L. Sadlier-Brown, C. Ikona	30/8/74	Geol, Geochem
106 C 10 64°41'N, 132°53'W	BAT Bow River Resources Ltd. Highhawk Mines Ltd. T. L. Sadlier-Brown, C. Ikona	30/8/74	Geol, Geochem
106 C 10 64°41'N, 132°59'W	DF Cominco Ltd. S. B. Butrenchuk	28/11/74	Prospect, Geol
106 C 10 64°45'N, 132°50'W	RAIN Pine Lake Mining Co. Ltd. G. C. Gutrath	10/10/74	Geol, Geochem
106 C 11 64°33'N, 133°15'W	RAM Kendal Mining and Exploration Co. Ltd. G. C. Gutrath	11/74	Geol, Geochem
106 C 11 64°36'N, 133°17'W	DJ Consolidated Standard Mines Ltd., Yukon Gold Placers Ltd. T. L. Sadlier-Brown, C. Ikona	9/74	Geol
106 C 11 64°38'N, 133°15'W	PING Bow River Resources Ltd. Highhawk Mines Ltd. R. Darney, C. Ikona	9/74	Geol, Geochem
106 C 11 64°38.5'N, 133°16'W	NET Grandora Explorations Ltd. J. R. Deighton	9/74	Geol, Geochem
106 C 11 64°39'N, 133°08'W	WX Cominco Ltd. M. S. Travis	17/10/74	Geol, Geochem
106 C 14 64°51'N, 133°08'W	EG Dynasty Explorations Ltd. P. M. Dean, R. C. Carne	12/74	Geol, Geochem

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
106 C 14 64°57'N, 133°23'W	MAC, OTTO, MAD Menika Mining Ltd. D. G. Mark	16/4/75	Aeromag, VLF-EM
106 C 15, 16 106 F 1, 2 64°59'N, 132°27'W	CAB Welcome North Mines Ltd. J. S. Brock, J. D. Guild	24/2/75	Geol, Geochem, DD
106 C 16, 106 F 1 65°00'N, 132°18'W	AB Welcome North Mines Ltd. J. S. Brock, J. D. Guild	12/74	Geol, Geochem, DD
106 D 3 64°05'N, 135°14'W	MOSHE Silver Spring Mines Ltd. Canadian Reserve Oil and Gas Ltd. R. G. Hilker	14/11/74	Geol, Geochem
106 E 2 65°03'N, 134°38'W	IGOR Ogilvie Joint Venture A. R. Archer	1/5/75	Geol, Geochem
106 E 2 65°09'N, 134°52'W	FLUNK Ogilvie Joint Venture A. R. Archer	5/75	Geol, Geochem
106 E 3 65°01'N, 135°05'W	MAGIC Dynasty Explorations Ltd. P. M. Dean	2/75	Geol
106 E 3 65°09'N, 135°04'W	MST Ogilvie Joint Venture A. R. Archer	1/5/75	Geol, Geochem
115 A 3 60°07'N, 137°07'W	MOHAWK Skyline Explorations Ltd. P. H. Sevensma	10/12/74	Geol, Geochem, Geophys
115 G 15 61°56'N, 138°09'W	DU, BIR, NIS Lakewood Resources Ltd. D. G. Mark	4/75	Geophys
115 I 3 62°08'N, 137°20'W	RICO AEX Minerals Corp. A. E. Aho	9/74	Geol, Geochem, Mag
115 I 5 62°07'N, 137°03'W	CAR (73-88) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton	12/11/74	Geol, Geochem, Geophys

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
115 I 5 62°15'N, 137°10'W	MJK (1-32) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton	29/10/74	Geol, Geochem, Geophys
115 I 5 62°15'N, 137°10'W	MJK (33-44) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton.	29/10/74	Geol, Geochem, Geophys
115 I 5 62°19'N, 137°08'W	CAR (1-40) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton	29/10/74	Geol, Geochem, Geophys
115 I 5 62°23'N, 137°18'W	CAR (41-56) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton.	29/10/74	Geol, Geochem, Geophys
115 I 5 62°25'N, 137°39'W	Cash Property Klotassin Joint Venture A. R. Archer	8/5/75	Geol, Geochem, Mag
115 I 5 62°26'N, 137°38'W	CAR (57-72) Western Mines Ltd. Cream Silver Mines Ltd. Belmoral Mines Ltd. J. R. Deighton	1/11/74	Geol, Geochem, Geophys
115 I 6 62°17'N, 137°08'W	GOLD STAR Dynasty Explorations Ltd. C. I. Godwin	5/74	Geol, Geophys
115 I 7 62°23'N, 136°45'W	BAY Hudson's Bay Oil and Gas Company Ltd. K. C. Rose	1/75	Geophys
115 I 11 62°32'N, 137°16'W	DARK Geo-Dyne Resources Ltd. P. P. Nielsen, G. C. Gutrath	19/2/74	Geophys
115 I 11 62°34'N, 137°09'W	TIM, JIM, IR BX Development Ltd. J. B. P. Sawyer	18/10/74	Geol, Geophys



N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
115 I 11 62°35'N, 137°05'W	FED United Keno Hill Mines Ltd. A. R. Beavan	8/74	Geol, Geochem
115 I 11 62°35'N, 137°16'W	DARK (47-54, 61, 63) Lion Mines Ltd. E. O. Chisholm	15/8/74	Geophys
115 I 11 62°40'N, 137°13'W	B, SEE Consolidated Standard Mines Ltd. A. R. Archer	10/74	Geochem
115 I 11 62°43'N, 137°15'W	MAC, POL, JIM, SAM Gold Valley Resources Ltd. R. H. Seraphim	15/10/74	Geochem, Geophys
115 N 2 63°04'N, 140°55'W	DEA Great Bear Mining Ltd. C. Ikona, R. Darney	1/75	Geol, Geochem
116 A 13 64°58.5'N, 137°41.5'W	ID Dynasty Explorations Ltd. P. M. Dean	2/75	Geol, Geochem
116 A 13 64°59'N, 137°46'W	HOT Dynasty Explorations Ltd. P. M. Dean, R. Carne	1/74	Geol
116 B 10, 15 64°45'N, 138°48'W	KIWI Dynasty Explorations Ltd. P. M. Dean, R. Carne	2/75	Geol, Geochem
116 B 12, 13 64°45'N, 139°45'W	OZ Dynasty Explorations Ltd. P. M. Dean	2/75	Geol, Geochem
116 B 16, 116 G 1 65°00'N, 138°18'W	DIDLO Dynasty Explorations Ltd. P. M. Dean	2/75	Geol
116 F, J, K, O	Ogilvie Project 1974 Brascan Resources Ltd. H. R. Bullis	1/2/75	Geol, Geochem
116 G 3 65°11'N, 139°10'W	BEAR Inexco Mining Co. J. R. O'Donnell	5/74	Geol, Geochem
116 G 7 65°16'N, 138°40'W	BILBO Dynasty Explorations Ltd. P. M. Dean, R. Carne	2/75	Geol, Geochem

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
116 G 7 65°18.5'N, 138°40'W	RALPH Dynasty Explorations Ltd. P. M. Dean, R. Carne	2/75	Geol, Geochem
116 H 10 65°37'N, 136°58'W	JUG Dynasty Explorations Ltd. P. M. Dean, R. Carne	2/75	Geol, Geochem
116 J 5 66°17'N, 139°43'W	DAV Brascan Resources Ltd. H. R. Bullis	13/8/74	Geol
116 J 5 66°22'N, 139°43'W	ROX (43-53, 32-40) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	GIRLY (73-74), ROX (57-70) Brascan Resources Ltd. G. McArthur, H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	MOD (7, 9-14, 25-32), BON (15) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	MOD (15-18, 33-36), BON (16-19, 26, 27, 34, 35) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	LUCKY (53-60), BON (13, 14, 24, 25, 32, 33, 40, 41) Brascan Resources Ltd. H. R. Bullis, G. McArthur	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	GIRLY (38-44, 55-62), ROX (42, 54, 55, 56) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	GIRLY (17, 75-89) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	GIRLY (63-72, 46-54) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	BON (1-8), LUCKY (41-48) Brascan Resources Ltd. H. R. Bullis, G. McArthur	31/8/74	Geol

N.T.S. and coordinates	Property, Company and Author	Date of Report	Work
116 J 5 66°22'N, 139°43'W	LUCKY (1-8, 21-28) Brascan Resources Ltd. H. R. Bullis	21/8/74	Geol
116 J 5 66°22'N, 139°43'W	LUCKY (13-20, 33-40) Brascan Resources Ltd. H. R. Bullis, G. McArthur	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	MOD (1-6, 8, 19-24) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°22'N, 139°43'W	ROX (29, 30), JULIE (12-17) Brascan Resources Ltd. H. R. Bullis	31/8/74	Geol
116 J 5 66°24'N, 139°45'W	ERIN Brascan Resources Ltd. H. R. Bullis	12/8/74	Geol
116 K 1 66°09'N, 140°11'W	MINK Inexco Mining Company J. R. O'Donnell	5/74	Geol, Geochem, Geophys

SELECTED BIBLIOGRAPHY

Allan, J.F. and Findlay A.

- 1972: MacMillan tungsten deposit; Proceedings, Fourth Northern Resources Conference, Whitehorse, Yukon Territory, April 1972, pp. 97-101.

Blusson, S.L.

- 1974a: Mount Eduni, Bonnet Plume Lake, Nadaleen River, Lansing and Nidderly Lake map-areas, Yukon Territory and Northwest Territories, Geol. Surv. Can., Open File Report 205.

- 1974b: Nadaleen River map-area, Yukon Territory and Northwest Territories; (portions); Geol. Surv. Can., Open File Report 206.

Blusson, S.L. and Tempelman-Kluit, D.J.

- 1970: Operation Stewart, Yukon Territory and District of MacKenzie; Report of Activities, Geol. Surv. Can., Paper 70-1, Part A, pp. 29-32.

Bostock, H.S.

- 1936: Carmacks District, Yukon; Geol. Surv. Can., Mem. 189.

- 1938: Mining industry of Yukon, 1937; Geol. Surv. Can., Mem. 218.

- 1939: Mining industry of Yukon, 1938; Geol. Surv. Can., Mem. 220.

- 1941: Mining industry of Yukon, 1939 and 1940; Geol. Surv. Can., Mem. 234.

- 1944: Preliminary map, Selwyn River, Yukon; Geol. Surv. Can., Paper 44-34.

- 1957: Yukon Territory, selected field reports of the Geological Survey of Canada, 1898 to 1933; Geol. Surv. Can., Mem. 284.

Bostock, H.S. and Lees, E.J.

- 1938: Laberge map-area, Yukon; Geol. Surv. Can., Mem. 217.

Boyle, R.W.

- 1957: The geology and geochemistry of the silver-lead-zinc deposits of Galena Hill, Yukon Territory; Geol. Surv. Can., Paper 57-1.

- 1965: Geology, geochemistry, and origin of the lead-zinc-silver deposits of the Keno Hill-Galena Hill area, Yukon Territory; Geol. Surv. Can., Bull. 111.

- 1968: The geochemistry of silver and its deposits; Geol. Surv. Can., Bull. 160.

Brock, J.S.

- 1973: Geophysical exploration leading to the discovery of the Faro deposit, Yukon Territory; CIM Bull., v. 66, pp. 97-116.

Cairnes, D.D.

- 1910: The Wheaton River district, Yukon Territory; Geol. Surv. Can., Sum. Rept., 1909, pp. 47-60; also in Bostock (1957, pp. 327-342).

- 1916: Wheaton District, Southern Yukon Territory; Geol. Surv. Can., Sum. Rept., 1915, pp. 36-49; also in Bostock (1957, pp. 410-425).

Chisholm, E.O.

- 1957: Geophysical exploration of a lead-zinc deposit in Yukon Territory; Methods and case histories in mining geophysics; Sixth Commonwealth Mining and Metallurgical Congress, pp. 269-277.

Christian, J.D.

- 1966: The development of the Clinton Creek asbestos deposit and its effects on the Yukon; paper presented to Northern Resources Conference, Whitehorse, Yukon Territory, 1966; Western Miner, April 1966, pp. 216-220.

Cockfield, W.E.

- 1920: Mayo area, Yukon; Geol. Surv. Can., Sum. Rept. 1919, Pt. B; also in Bostock (1957, pp. 483-487)
- 1922: Silver-lead deposits of Davidson Mountains, Mayo district, Yukon; Geol. Surv. Can., Sum. Rept., 1921, Pt. A, pp. 1A-6A; also in Bostock (1957, pp. 494-500).
- 1923: Explorations in southern Yukon; Geol. Surv. Can., Sum. Rept., 1922, Pt. A, pp. 1-8; also in Bostock (1957, pp. 501-507).

Cockfield, W.E. and Bell, A.H.

- 1926: Whitehorse District, Yukon; Geol. Surv. Can., Mem. 150.
- 1944: Whitehorse District, Yukon; Geol. Surv. Can., Paper 44-14.

Craig, D.B. and Laporte, P.

- 1972: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1969-1970, Vol. I; Dept. of Ind. Aff. and Northern Development.

Craig, D.B. and Milner, M.W.

- 1975: Mineral Industry Report, Yukon Territory, 1971 and 1972; Dept. Indian and Northern Affairs; EGS 1975-6.

Dawson, K.M.

- 1975: Carbonate-hosted zinc-lead deposits of the Northern Canadian Cordillera; Geol. Surv. Can., Paper 75-1, Pt. A, pp. 239-241.

Findlay, D.C.

- 1967: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1966; Geol. Surv. Can., Paper 67-40.
- 1969a: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1967; Geol. Surv. Can., Paper 68-68.
- 1969b: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1968; Geol. Surv. Can., Paper 69-55.

Gabrielse, H.

- 1966: Geology, Watson Lake, Yukon Territory; Geol. Surv. Can., Map 19-1966.

Gabrielse, H. and Blusson, S.L.

- 1969: Geology of Coal River map-area, Yukon Territory and District of MacKenzie; Geol. Surv. Can., Paper 68-38.

Gabrielse, H., Blusson, S.L. and Roddick, J.A.

- 1973: Geology of Flat River, Glacier Lake and Wrigley map-areas, District



of MacKenzie and Yukon Territory; Geol. Surv. Can., Mem. 366.

Gleeson, C.F.

1966a: Lead content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 45-1965.

1969b: Silver content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 46-1965.

1966c: Arsenic content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 48-1965.

1967a: Antimony content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 49-1965.

1967b: Molybdenum content of stream and spring sediments, Keno Hill area, Yukon Territory; Geol. Surv. Can., Map 51-1965.

Green, L.H.

1965: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1964; Geol. Surv. Can., Paper 65-19.

1966: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1965; Geol. Surv. Can., Paper 66-31.

1971: Geology of Mayo Lake, Scougale Creek and McQuesten Lake map-areas, Yukon Territory; Geol. Surv. Can., Mem. 357.

1972: Geology of Nash Creek, Larsen Creek and Dawson map areas, Yukon Territory; Geol. Surv. Can., Mem. 364.

Green, L.H. and Godwin, C.I.

1963: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1962; Geol. Surv. Can., Paper 63-38.

1964: The mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1963; Geol. Surv. Can., Paper 64-36.

Green, L.H. and McTaggart, K.C.

1960: Structural studies in the Mayo District, Yukon Territory; Proc. Geol. Assoc. Can., Vol. 12, pp. 119-134.

Green, L.H., Roddick, J.A., and Blusson, S.L.

1968: Geology, Nahanni, District of MacKenzie and Yukon Territory; Geol. Surv. Can., Map 8-1967.

Johnston, J.R.

1937: Geology and mineral deposits of Freegold Mountain, Carmacks District, Yukon; Geol. Surv. Can., Mem. 214.

Hilker, R.G.

1967: Copper mining on the Whitehorse Copper Belt, Yukon Territory; a paper presented at the 1967 Alaska Purchase Centennial Minerals Conference, College, Alaska.

Kindle, E.D.

1953: Dezadeash map-area, Yukon Territory; Geol. Surv. Can., Mem. 268.

1964: Copper and iron resources, Whitehorse Copper Belt, Yukon Territory;

Geol. Surv. Can., Paper 63-41.

Lees, E.J.

- 1936: Geology of Teslin-Quiet Lake area, Yukon; Geol. Surv. Can., Mem. 203.

Lenz, A.C.

- 1972: Ordovician to Devonian history of Northern Yukon and adjacent District of MacKenzie; Bull. Can. Pet. Geol., v. 20, No. 2, pp. 321-361.

Ludvigsen, R.

- 1975: Ordovician formations and faunas, Southern MacKenzie Mountains; Can. Jour. Earth Sci., v. 12, No. 4, pp. 663-697.

Muller, J.E.

- 1967: Kluane Lake map-area, Yukon Territory; Geol. Surv. Can., Mem. 340.

Norris, D.K., Price, R.A., and Mountjoy, E.W.

- 1963: Geology, Northern Yukon Territory and Northwestern District of MacKenzie; Geol. Surv. Can., Map 10-1963.

Poole, W.H., Roddick, J.A., and Green, L.H.

- 1960: Geology, Wolf Lake, Yukon Territory; Geol. Surv. Can., Map 10-1960.

Roddick, J.A. and Green, L.H.

- 1961a: Geology, Tay River, Yukon Territory; Geol. Surv. Can., Map 13-1961.

- 1961b: Geology, Sheldon Lake, Yukon Territory; Geol. Surv. Can., Map 12-1961.

Skinner, R.

- 1961: Mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1960; Geol. Surv. Can., Paper 61-23.

- 1962: Mineral industry of Yukon Territory and Southwestern District of MacKenzie, 1961; Geol. Surv. Can., Paper 62-27.

Sinclair, W.D. and Gilbert, G.W.

- 1975: Mineral Industry Report, Yukon Territory, 1973; Dept. Indian and Northern Affairs, EGS 1975-7.

Tempelman-Kluit, D.J.

- 1970: Stratigraphy and structure of the "Keno Hill Quartzite" in Tombstone River-Upper Klondike River map-areas, Yukon Territory; Geol. Surv. Can., Bull. 180.

- 1972: Geology and origin of the Faro, Vangorda, and Swim concordant zinc-lead deposits, central Yukon Territory; Geol. Surv. Can., Bull. 208.

- 1974a: Geology of Carmacks map-area; Geol. Surv. Can., Open File Report 200.

- 1974b: Reconnaissance geology of Aishihik Lake, Snag and part of Stewart River map-areas, west-central Yukon; Geol. Surv. Can., Paper 73-41.

Wheeler, J.O.

- 1961: Whitehorse map-area, Yukon Territory; Geol. Surv. Can., Mem 312.

Wheeler, J.O., Green, L.H., and Roddick, J.A.

1960a: Geology, Quiet Lake, Yukon Territory; Geol. Surv. Can., Map 7-1960.

1960b: Geology, Finlayson Lake, Yukon Territory; Geol. Surv. Can., Map 8-1960.

INDEX

	Page
A Claims	126
AB Claims	66
Abbott, G.	8
ACE Claims	28, 132
Action Resources Limited	26
Adamson, R.S.	92
ADD Claims	114, 115
ADDITION Claims	114
AEX Minerals Corporation	7, 126, 130, 134
AG Claims	115, 149
AL Claims	107
ALBERTA Claims	13
ALI Claims	87
ALICE Claims	130
Allan, R.J.	8
Allgold Creek	172
Amax Exploration Incorporated	60, 61, 62, 87, 89
Amax Northwest Mining Company Limited	6, 20
American Smelting and Refining Comapny Limited	7, 98, 124
Amoco Canada Petroleum Comapny Limited	87, 89, 91, 93, 94
ANG Claims	23
ANGIE Claims	150
ANN Claims	23, 30
ANNIV Claims	159
Anvil Mine	128
Anvil Mining Corporation Limited	128, 132, 133, 154, 168
Anvil Range Syndicate	136, 137
APEX Claims	143
Aquitaine Company of Canada Limited	64, 67, 68
Archer, Cathro and Associates Limited	63, 64, 67, 96, 100, 112, 153, 155
Archibald, J. and R.	169
Arctic Red Joint Venture	33, 65
ARNOLD Claims	154
ARO Claims	137
Asbestos Corporation Limited	114
Ashland Oil Canada Limited	116
Atlas Explorations Limited	112
AU Claims	114, 115
AUGUSTA Claims	115
AUSSIE Claims	74
AX Claims	126
AXE Claims	33
B Claims	108
Backbone Ranges	65
BAD Claims	82
BAF Claims	23
BAILEY Claims	151
Ballarat Mines Limited	173
BAR Claims	34
Barchan, H.	181
BARITE Claims	21
Barrier Reef Resources Limited	6, 23
BAT Claims	58
BAY Claims	123
BEAR Claims	40, 77, 112, 148
Beauvette, Louis	10

	Page
Becker-Cochran Property	147
Becker Creek	147
Bedrock Creek	177
Belmoral Mines Limited	39, 111, 113, 117, 118, 119, 125, 147
Berg, S.	169
Bergvinson, E.	147
Besner, H.	184
Bethlehem Copper Corporation	65
BETTY Claims	20
Big Creek	111
BILBO Claims	78
BILL Claims	128
BIR Claims	139
BIRCH Claim	12
BIX Claims	130
Black Giant Mines Limited	102
Bleiler, E.	181
Blind Creek	131
BOB Claims	41, 124
BON Claims	23, 81
BORDER Claims	20
Boswell River	149
Boswell River Mines Limited	149
Bow River Resources Limited	53, 54, 58, 107
BOX Claims	45
BPR Claims	47, 48
BRA Claim	12
BRANDY Claims	85
Branigan, D.	184
Brascan Resources Limited	81, 82, 83, 84, 85
Bremner, I	171
Brendon-Gladiator Resources	170
Brisboise, A. and A.	49
Bullion Mountain Mining Limited	16
Burwash Creek	184
Burwash Mining Company Limited	184
Burgleman, A. and N.	53
BUT Claims	122
B.X. Development Limited	100, 105
CAB Claims	65
Campbell, E.	115
Campbell, R.B.	7
Canada Tungsten Mining Corporation Limited	21, 151
Canex Aerial Exploration Limited	114, 120
Canex Placer Limited	6, 159
Canadian Reserve Oil and Gas Limited	14
Canadian Superior Exploration Limited	95, 96, 103, 104, 122
Canyon City	138
CAR Claims	111, 113, 117, 125
Carmacks	168
Carson, J.M.	8
CASH Claims	112
Cassiar Asbestos Corporation Limited	72
CAT Claims	40
Cathro, R.J.	92
CC Claims	93
CENO Claims	90
Central Del Rio Oils Limited	138



	Page
CH Claims	14
CHAMP Claims	130
CHAP Claims	136
Chapman Lake	75
Chatex Industries Limited	28
CHEECHAKO Claim	12
CHUCK Claims	130
CHOPPER Claims	83
Christie, D.	174
CIVI Claims	135
Clay, Harris	64, 67, 68, 153, 155
Clay, L.T.	64, 67, 68, 153, 155
Claymore Resources Limited	27
Clear Creek	180
Clear Creek Gold Mines	180
Clinton Creek	72
Clinton Creek Mine	72
Coast Copper Company Limited	41, 56, 60
COIN Claims	110
Coin Canyon Mines Limited	120
Colby Mines Limited	37
Colorado Creek	94
COMANCHE Claims	101
Cominco Limited	40, 55, 56, 57, 60
Consolidated Discovery Mines Limited	116
Consolidated Standard Mines Limited	52, 108
Conwest Exploration Comapany Limited	30, 74, 114, 115, 156
COPPER COIN Claims	110
Coranex Limited	96, 112
Corn Creek	51
Corval Resources Limited	48
Crawford, G.	172
Cream Silver Mines Limited	37, 111, 113, 117, 118, 119, 125, 129, 135, 161
Crockett, M. and D.	172
CUNG Claims	69
CVO Claims	47, 48
CYP Claims	42
Cypress Resources Limited	42
Cyprus Anvil Mining Corporation	64, 128
Cyprus Mines Corporation	128, 132, 133
Dago Hill	170
DAN Claims	61
DANA Claims	133
D. and D. Mining	174
DARK Claims	106
Dark Creek	96
Darney, R.	92
Darron Placers	180
DAV Claims	81
Dawson, K.M.	8
Dawson, K.R.	8
Dawson Range Joint Venture	96, 100
D.C. Syndicate	95, 121
DEA Claims	58, 92, 128
DEF Claims	96
DEL Claims	122
DEN Claims	15
DF Claims	57

	Page
DICK Claims	46
Dickson-Yukon Syndicate	128
DIDLO Claims	76
Discovery Mines Limited	116
Divide Property	61
DJ Claims	52
Djukestein, K.	174
DOC Claims	60
Dodds, C.J.	7
DOG Claims	15
DOLL Claims	87
Doll Creek	86
Dolores Creek	62
Dolores Creek Property	62
Dominion Creek	172, 173
DON Claims	159
DONNA Claims	20
DOROTHY Claim	12
DOYLE Claims	93
Doyle Creek	93
DP Claims	96, 128
DTG Claims	62
DTS Claims	63
DU Claims	33, 139
Dual Resources Limited	150
Dublin Gulch	180
Duensing, D.	180
Dupont Explorations of Canada Limited	136, 137
Dupont of Canada Limited	65
DUO Claims	23
Duo Creek	35
Dwarf Birch Creek	139
Dwight, J.	171
DY Claims	128
Dynasty Explorations Limited	6, 17, 61, 69, 70, 71, 74, 75, 76, 78, 79 115, 128, 132, 160, 162, 163, 164, 166
EAGLE Claims	156
ECON Claims	19
ED Claims	42, 128
EG Claims	61
Eisbacher, G.H.	7
EL Claims	156
ELC Claims	150
Eldorado Creek	170
El Paso Mining and Milling Company Limited	146, 149
ELLE Claims	131
ELLEMAY Claims	130
Empire Metals Corporation Limited	152
ENOC Claims	88
Envoy Resources Limited	158
Erickson, J.	172
Erickson, P.	172
ERIN Claims	81
Erl, F.	181
Eureka Creek	173
EXCELSIOR Claims	115
Exeter Mines Limited	120
Falconbridge Nickel Mines Limited	16, 96, 103, 104, 122

	Page
FARO Claims	128
Faucher, E.	177
FED Claims	104
Fellers, W. and J.	173
Fell Hawk Placers	173
FETISH Claims	155
Finlayson Joint Venture	155
FIRTH Claims	130
Fishing Branch River	79
FLUNK Claims	67
Forbes, D.L.	8
FORMO Group	12
Fort George Mining and Exploration Company Limited	13
FOX Claims	112
Fritz, W.H.	8
Fry, A. and D.	17
FUN Claims	32,95
FXE Claims	42
GAL Claims	30,128
GALE Claims	128
Gatenby, L.	174
GBX Mines Limited	35
General Enterprises Limited	114
Genier, A.	180
Gentry Oil and Gas Limited	28
Geo-Dyne Resources Limited	106
Geophoto Services Limited	82
GEP Claims	41
Gibson, R. and B.	174
GIN Claims	30
GIRLY Claims	81
Glacier Creek	177
Glacier Creek Placers	177
Gladstone Creek	184
Gold Bottom Creek	171,172
GOLDEN HORN Claims	138
GOLD STAR Claims	115
Gold Valley Resources Limited	108
GOOD Claims	82
Gordey, S.	8
GOZ Claims	23,30
Goz Creek	23
Goz Creek Property	23
Granby Mining Corporation	152
Grand Forks	169
Grandora Explorations Limited	28
Granite Mountain	120
Great Bear Mining Limited	92
Great Plains Development Company of Canada Limited	41
Greenland Explorations Limited	184
GREENSTONE Claims	115
Grimard, L.	177
GROUSE Claims	143
GRUM Claims	130
Guder, P. F.	114,115
GULL Claims	20,162
GUN Claims	81
GUS Claims	36

	Page
GYK Claims	41
H Claims	50
HA Claims	40
Hakonson, W. and G.	173
HAL Claims	133
HALO Claims	133
Hals, Nels	150
HAM Claims	23
HANK Claims	130
HANNA Claims	138
HARDLUCK Claims	110
Harman, A.	34,92
Harman Management Limited	29,33,39,43,46
Harrison Creek	41
Hart River	69
Hart River Mines Limited	74
HAYES Claims	96
Hayes Creek	95
HD Claims	45
Heitman, G.	169
Hibernian International Development Company Limited	50
Hight Creek	181
Highhawk Mines Limited	53,54,58
Holway, R.	180
HOMESTAKE Claims	114
Hootchekoo Creek	122
HOT Claims	76
Howard's Pass Property	159
Hudson Bay Exploration and Development Limited	150
Hudson Bay Oil and Gas Company Limited	123
Hunker Creek	170,171,172
Hunter, J. A.	8
Hyland Joint Venture	153
ID Claims	71
IGOR Claims	68
Ikona, C. K.	92
Illtyd Creek	67
Imperial Mines and Metals Limited	142
INCA Claims	17,114
Inexco Mining Company	77,79
Ings River	156
International Mogul Mines Limited	65
International Nuclear Company Limited	82
Inter Tech Development and Resources Limited	133
IR Claims	105
Irvine Lake	150
IT Claims	156
Itsi Lakes	165
IVAN Claims	133
J Claims	50
JACK Claims	130
Jackpot Copper Mines Limited	140
Jackson Gulch	169
JEAN Claims	152
Jeletzky, J. A.	9
JIM Claims	81,105,108,158
JJ Claims	154
JMA Claims	40

	Page
JOHNNY Claims	112
JUG Claims	70
JULIE Claims	81
Junex Resources Limited	45
K Claims	50
K. and S. Placers	172
KAP Claims	100
KAY Claims	128
KEM Claims	73
KEN Claims	21
Kendal Mining and Exploration Company Limited	48,51
Keno Hill Mines Limited	10
Kerr Addison Mines Limited	7,130,134
KING Claims	144
King Lake Property	144
Kirkland Creek	127
KIS Claims	41
KIWI Claims	75
K-L Claims	144
Klippert, C. and H.	180
Klondike Explorations Limited	73
Klotassin Joint Venture	112
Kosuta, A	171
Kreft, E.	143
L Claims	50
Lacross, J.	174
Ladue River	92
LAFORMA Group	116
LAKE Claims	144
Lakewood Resources Limited	139
Lamontagne, J.	170
La Ronge Mining Limited	110
Last Chance Creek	171
LEA Claims	128
Leaming, S. F.	8
Leisure Gold Limited	173
Lewis, C. P.	8,9
Liard River Mining Company	153
LIBERTY Claims	115
LIN Claims	23
Lion Mines Limited	106
LISA Claims	132
LIZ Claims	37,38
LO Claims	128
LODD Claims	87
Logie, L.	180
Loon Lakes	148
Loon Lake Syndicate	148
LORD Claims	85
LUCKY Claims	81
LUNAR Claims	143
Lunde, O. and M.	171
LUV Claims	23
Lynch, J.	177
LYNX Claims	81,148
M Claims	109
MAC Claims	63,108,130
Mac Millan Pass	167



	Page
Mac Millan Pass Property	20
MAD Claims	63
MAG Claims	49
MAGIC Claims	69
Magundy River	135
Marietta Resources International Limited	64,67,68,100,112,153,155
MARGARETE Claim	115
MARK Claims	138
Matthews, J. V. Jr.	8
McMillan Project	153
MEB Fraction	23
MEL Claims	152
Menika Mining Limited	49,63,139
Merrice Creek	124
Miben Mining Limited	170
Michelle Creek	71,76
Miller Creek	177
Miner River	83
MING Claims	129
MINK Claims	79,148
MINTO Claims	98
Mitsubishi Metal Corporation	153
MJK Claims	118,119
ML Claims	89
MM Claims	154
MOD Claims	81
MOHAWK Claims	140
MOKO Claims	81
Molybdenum Corporation of America	100,112
Monger, J. W. H.	7
MOOSE Claims	21
MOR Claims	128
MOSHE Claims	15
Mount Cameron	16
Mount Freegold	115
Mount Harper	74
Mount Nanson	126
Mount Profeit Property	60
MOUSE Claims	40
MS Claims	166
MST Claims	67
MTX Claims	164
MX Claims	43
NAD Claims	25
NADA Claims	95
NAVAJO Claims	102
NEB Claims	100
NEST Claims	33
NET Claims	55
Newconex Canadian Exploration Limited	112
New Imperial Mines Limited	142
New Jersey Zinc Corporation Limited	143
Newmont Mining Corporation	152
Nicholson, C.	169
Nicola Copper Mines Limited	44
NIS Claims	139
Noisy Creek	63
Noranda Exploration Company Limited	17,69,86,88,90

	Page
Northair Mines Limited	107
Northern Empire Mines Limited	133
Northern Homestake Mines Limited	133
North Stewart River	19
NRD Mining Limited	164
NUK Claims	138
Nuspar Resources Limited	21
O'Brien Creek	74
Ogilvie Joint Venture	63,67,68
Ogilvie River	77
Olympian International Resources Limited	50
ONCE Claims	86
OP Claims	159
Ormsby Mines Limited	116
Oscar Lake	151
Otter Lake	152
OTTO Claims	63
OZ Claims	74
PAL Claims	30,100
PANTHER Claims	143
PAPOOSE Claims	12
PAR Claims	20
PAS Claims	160
PAT Claims	20
PATT Claims	20
PAUL Claims	15,16
PB Claims	42
PEA Claims	128
PEACH Claims	81
Pedder, A. E. H.	9
PEERLESS Claim	115
PEG Claims	115
Pelly River Staking Syndicate	64
Perret, F.	170
PESO Claims	44
Pine Lake Mining Company Limited	59
PING Claims	53
Pinnacle Mines Limited	101
PIT Claims	20
PLATA Claims	16
PLU Claims	35
POL Claims	108
PONG Claims	54
POP Claims	147
PORKER Claims	153
POS Claims	165
PREMIER Claim	12
Preussag A.G. Metallgesellschaft	132
Primrose Mountain	145
Prism Resources Limited	115
Prohaszka, S.	177
PROGRESS Claims	115
Prospectors Airways Limited	128
PROTECTION Claim	115
Quartz Creek	174
Quartz Lake	153
R Claims	159
RAF Claims	39

	Page
RAIN Claims	59
RALPH Claims	79
RAM Claims	51,156
Rambler Hill	15
Rambler Hill Property	15
R. and R. Mining Company	174
RAS Claims	89
Rasmussen, W.	174
RAT Claims	81
RAY Claims	41
Rayrock Mines Limited	116
Read, B.	8
Read, P. B.	7
Regency Resources Limited	22
REV Claims	114
REVENUE Claims	114
Revenue Creek	114
REVENUE COPPER Claims	114
Richards, C.	171
RICH Claims	128
RICO Claims	126
RIDGE Claims	135
Ridgemont Mining Corporation	132,133
RIMROCK Claims	74
Rintoul, D.	174
Rio Plata Silver Mines Limited	12
RN Claims	74
ROCK Claims	128
ROCKET Claim	12
ROCKY Claims	130
ROD Claims	107
Rogue River	17
ROSE Claims	128
Rose Creek	128
ROSS Claims	161
Ross, L.	174
Rothbauer, W.	38
ROX Claims	81
ROY Claims	143
Royal Creek	69
RUM Claims	37
RYE Claims	26,27
Sailor, A. and N.	173
SALLY Claims	130
SAM Claims	108
Sangster, D. F.	8
SB Claims	128
Schmidt, H.	173
Schneider, F.	171
Scott, W.	180
SCREW Claims	42
SEA Claims	128
Seagull Creek	154
SEE Claims	108
SEL Claims	165
Selwyn River	95
Serem Limited	36
SHAD Claims	127

	Page
Shanghai Property	14
SHEARZONE Claims	115
SHEEP Claims	145
Sicintine Mines Limited	24,25
Silgold Mines Limited	120
Silver City Mines Limited	138
Silver Spring Mines Limited	13,15
Silver Standard Mines Limited	74,98,131,135,167
SIN Claims	82
SINK Claims	26
Sinkoitz, A.	174
Sixtymile Enterprises	177
Sixtymile River	177
SKOOKUM Claim	12
Skukum Creek	146
SKY Claims	140
Skyline Explorations Limited	126
SLAGGARD Claims	138
SLATE Claims	22
Smith, A. A.	12
SN Claims	153
SNOWDRIFT Claims	13
SOMETHING Fraction	12
Souther, J. G.	7
Southwest Potash Corporation	20
Spartan Explorations Limited	132
Spectroair Explorations Limited	40,58
Spotted Fawn Property	73
SPRUCE Claim	12
Stanciu, Constantina	7
Standard Oil Company of British Columbia	64,67,68,155
STAR Claims	55
STE Claims	140
STELLA Claims	124
STOL Claims	23
Strauss Exploration Incorporated	100
Stutter, M.	170
Suits, R.	144
Sulphur Creek	174
Summit Lake	159
SUN Claims	60,103,128
SUZANNE Claims	150
SWIM Claims	134
Swim Lakes	134
Swim Lakes Property	134
Tacoma Resources Limited	45
TAGISH Claim	12
Takacs, S.	143
TAM Claims	164
Tantalus Butte Mine	168
TAP Claims	163
Taseko Mines Limited	110
Tatamagouche Creek	184
Tatlow, K.	170
Tatshenshini River	140
Tay River	133
Teck Corporation Limited	114,131,135,136,137
Tempelman-Kluit, D. J.	7,8

	Page
Tenas Creek	136
TER Claims	132
Thompson, T.	180
Thor Explorations Limited	165
Thunder Gulch	181
TIE Claims	128
TILLICUM Claim	12
TINTA Claims	120
Tintina Silver Mines Limited	6,156
TIM Claims	105,130
Titan-Polaris Mines Limited	21
TOAD Claims	84
TOM Claims	29
Tombstone Mountain	73
Toporowski, C.	34
Tournigan Mining Explorations Limited	31
Trail Hill	169
Treadwell Yukon Mining Limited	10
Trident Resources Limited	165
T.R.V. Minerals Corporation	47
TRW Claims	47
TUF Claims	95
TUKU Claims	87
TUS Claims	89
TWICE Claims	90
Twin River Resources Limited	47
TYE Claims	39
TYEE Claim	12
Tyee Lake Resources Limited	21
UGLY Claims	82
Union Miniere Explorations and Mining Corporation Limited	127
Union Oil Company of Canada	155
United Keno Hill Mines Limited	7,10,13,14,95,96,103,104,122,168
United Pemetex Limited	138
U.R. Property	14
Utah Mines Limited	65
Vangorda Creek	130
Vestor Explorations Limited	129,135
VIC Claims	126
Victoria Creek	125
Victoria Mountain	126
VINDICATOR Claims	115
VIT Claims	91
Vittrekwa Creek	91
VUH Claims	23
WALT Claims	23
Warnsby, B.	170
Welcome North Mines Limited	33,35,65,66,145,167
Western Mines Limited	111,113,117,118,119,125
WH Claims	146
WHI Claims	42
Whitehorse Copper Belt	142
Whitehorse Copper Mines Limited	142,143
White River Copper Property	138
Williams Creek	123
WIMPY Fraction	12
Wolverine Lake	155



	Page
WOLF Claims	143
WON Claims	121
WOP Claims	136
WSS Claims	167
WX Claims	56
Wyatt, W.	184
WYNNE Claims	130
X Claims	159
Y Claims	159
Yaremcio, W.	177
YK Claims	31
Young, F. G.	9
Yukeno Mines Limited	12
Yukon Antimony Corporation Limited	146,147
YUKON Claims	13
Yukon Revenue Mines Limited	32,40,55,60,109,114,115
Yukon Gold Placers Limited	52,101
YUM Claims	83
ZAP Claims	15
ZINC Claims	154
ZN Claims	42
ZOG Claims	30
ZOT Claims	42



















